

AD-A103 446 WICHITA STATE UNIV KS ARCHAEOLOGY LABS  
SURVEY AND ASSESSMENT OF THE CULTURAL RESOURCES, TORONTO LAKE P--ETC(U)  
1981 A H ROHN, S T CACIOPPO, M K KING

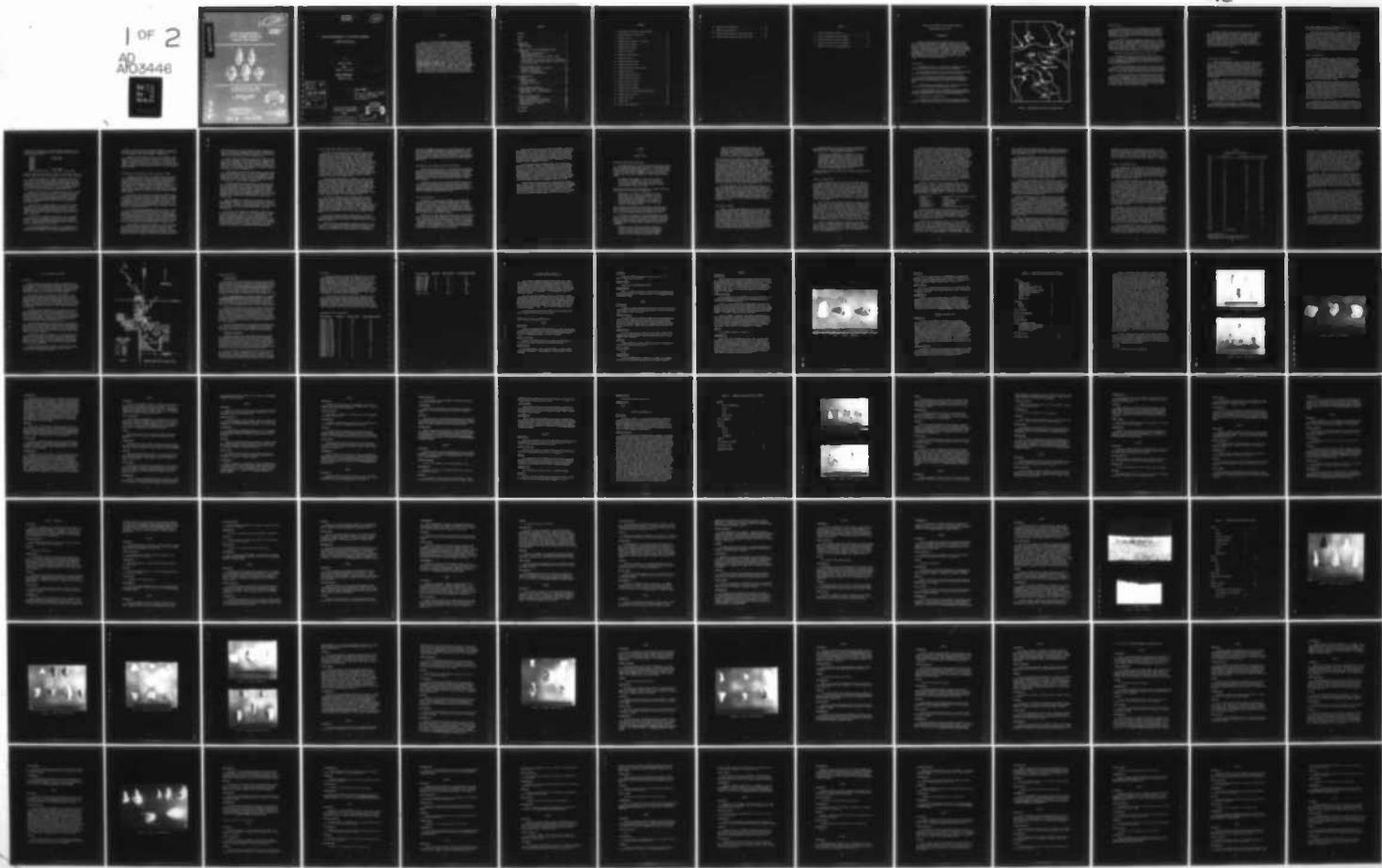
F/G 5/6

DACW56-79-C-0258

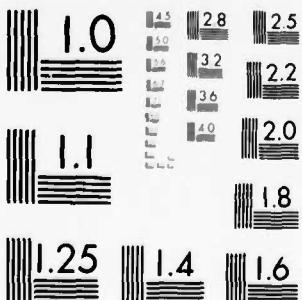
NL

UNCLASSIFIED

1 OF 2  
AD-A103446



0344



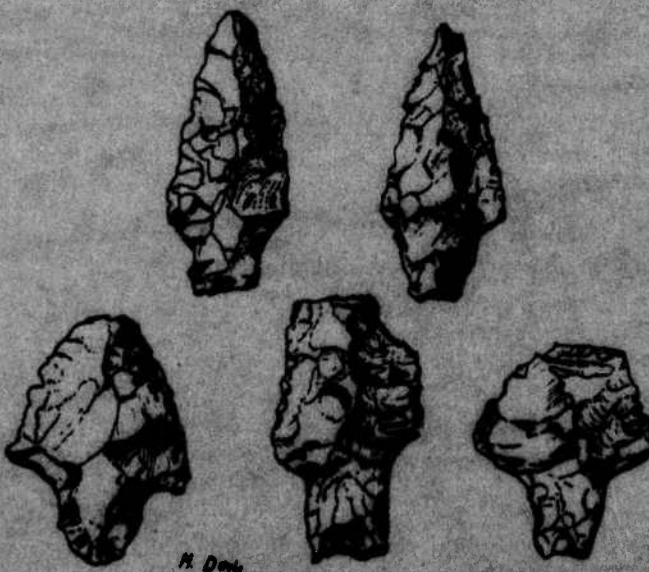
MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS 1963-A

AD A103446

12

LEVEL III

SURVEY AND ASSESSMENT  
OF THE CULTURAL RESOURCES  
TORONTO LAKE PROJECT



by Arthur H. Rohn and Samuel T. Cecropio  
with a Historic Section by Marsha K. King

WICHITA STATE UNIVERSITY  
Archaeology Laboratories  
1980

DTIC  
ELECTE  
S AUG 28 1981 D  
D

DISTRIBUTION STATEMENT A

Approved for public release  
Distribution Unlimited

Final Report  
Contract No. DACW36-C-0256  
U.S. Corps of Engineers  
Tulsa District

81 8 14 070

LEVEL IV

(P)

(6) SURVEY AND ASSESSMENT OF THE CULTURAL RESOURCES,  
TORONTO LAKE PROJECT.

BY

(10) ARTHUR H. ROHN

AND

SAMUEL T. CACIOPPO

(12) 142

WITH A SECTION BY

MARSHA K. KING

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By Per Str. on file	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

(9) FINAL REPORT

(15) new

CONTRACT NO. DACW56-79-C-0258  
U.S. CORPS OF ENGINEERS,  
TULSA DISTRICT

DTIC  
ELECTED  
S D  
AUG 28 1981

WICHITA STATE UNIVERSITY, KS  
ARCHAEOLOGY LABORATORIES

(11) 1981

New

412505

bey

DISTRIBUTION STATEMENT A  
Approved for public release;  
Distribution Unlimited

#### ABSTRACT

The U. S. Army Corps of Engineers requested a full inventory and assessment of cultural resources on lands administered by the Corps' Tulsa District around Toronto Lake in southeastern Kansas. Forty-two archaeological sites had been recorded during the 1950's prior to construction of the lake. During the intervening 25 years, changing land use patterns and modified alluviation and erosional processes obscured all but eight of the previously recorded sites, but exposed 22 new resources. A reconstructed culture history from these sites includes later Archaic, Cuesta Phase Woodland, a possible late Plains Woodland, Pomona, Historic American Indian, and Historic Euroamerican. Nine sites appear to possess the potential, through further investigation, to be eligible for inclusion on the National Register of Historic Places, and one for inclusion on the Register of Historic Kansas Places. A program of regular monitoring is recommended for most sites, with proposed testing at Sites 14GR201, 14GR202, 14GR210, 14GR505, 14GR508, 14GR509, 14GR517, and 14W0503. Further investigations of Toronto archaeology should also include a restudy of field notes and collections from the 1950's surveys in terms of our most recent understanding of southern Kansas prehistory.

## CONTENTS

ABSTRACT . . . . .	i
FIGURES . . . . .	iii
TABLES . . . . .	v
I. INTRODUCTION . . . . .	1
Scope of Work . . . . .	1
Research Design . . . . .	3
II. CULTURAL HISTORY OF THE UPPER VERDIGRIS REGION . . . . .	4
Prehistory . . . . .	4
Paleo-Indian (11,000-6,000 B.C.) . . . . .	4
Archaic (8,000-200 B.C.) . . . . .	5
Woodland/Plains Woodland (Early Ceramic) Stage (A.D. 1-100) . . . . .	7
Central Plains Phase (Middle Ceramic) (A.D. 800-1400) .	9
Proto-Historic (Late Ceramic) Stage (A.D. 1400-1700) .	10
The Great Bend Aspect . . . . .	10
History by Marsha K. King . . . . .	12
Historically Known Indian Inhabitants . . . . .	12
Early White Settlement . . . . .	13
Toronto: The Early Years . . . . .	14
Toronto: The Twentieth Century . . . . .	17
III. THE TORONTO SURVEY . . . . .	20
Conditions . . . . .	20
Approach and Methods . . . . .	22
Archival Search . . . . .	22
Informant Interviewing . . . . .	22
Field Work . . . . .	23
IV. CULTURAL RESOURCES IDENTIFIED . . . . .	25
Archaeological Sites - Greenwood County . . . . .	25
Archaeological Sites - Woodson County . . . . .	78
Historic Sites . . . . .	107
V. SUMMARY AND RECOMMENDATIONS . . . . .	113
Toronto Culture History . . . . .	113
Potential Environmental Relationships . . . . .	118
Present Conditions and Project Impact . . . . .	121
Significant Cultural Resources . . . . .	122
Recommendations . . . . .	122
BIBLIOGRAPHY . . . . .	130
INTERVIEWS . . . . .	136

## FIGURES

1. Archaeological Districts in Eastern Kansas . . . . .	2
2. Ground Conditions Visibility Map . . . . .	21
3. 14GR201 Artifacts . . . . .	28
4. 14GR202 Gary and Langtry Style Points . . . . .	32
5. 14GR202 Point Fragments . . . . .	32
6. 14GR202 Pottery Sherds . . . . .	33
7. 14GR210 Point Bases . . . . .	42
8. 14GR210 Grooved Axe Head . . . . .	42
9. 14GR508 Two Views . . . . .	59
10. 14GR508 Projectile Points . . . . .	61
11. 14GR508 Projectile Points . . . . .	62
12. 14GR508 Pomona Ware Pottery Sherds . . . . .	63
13. 14GR508 Stone Celts . . . . .	64
14. 14GR508 Chipped Stone Tools . . . . .	64
15. 14GR509 Surface Artifacts . . . . .	67
16. 14GR510 Surface Artifacts . . . . .	69
17. 14GR517 Surface Artifacts . . . . .	77
18. 14W0503 Surface Artifacts . . . . .	101
19. 14W0506 View of Features Pecked into Bedrock . . . . .	105
20. 14W0506 Plan and Profile . . . . .	106
21. 14GR518 Gravestone . . . . .	108
22. 14GR519 Plan . . . . .	110
23. Archaic Site Distribution . . . . .	114

24. Woodland Site Distribution . . . . .	115
25. Pomona Site Distribution . . . . .	117
26. Former Stream Channels at Lower Cedar Creek . . . . .	119
27. Former Stream Channels at Lower Cedar Creek . . . . .	120

**TABLES**

I.	Toronto Population Statistics . . . . .	18
II.	Surface Collections from Site 14GR202 . . . . .	30
III.	Surface Collections from Site 14GR210 . . . . .	41
IV.	Surface Collections from Site 14GR508 . . . . .	60
V.	Summary of Toronto Site Recommendations . . . . .	124

## SURVEY AND ASSESSMENT OF THE CULTURAL RESOURCES

### TORONTO/MARION LAKE PROJECT

#### I. INTRODUCTION

In order to comply with Executive Order 11593, the U. S. Army Corps of Engineers, Tulsa District, needed a complete inventory of all cultural resources within the boundaries of land under its jurisdiction at Toronto Reservoir in Greenwood and Woodson Counties, Kansas (Fig. 1). Wichita State University was asked to conduct this inventory in order to provide information for development of a cultural resources management plan for this property. Contract No. DACW56-79-C-0258 was negotiated to investigate the 11,912 acres of water and land area. Cultural resources are defined as any evidence, structure, or remains of historic or prehistoric nature.

#### Scope of Work

The agreement with the U. S. Army Corps of Engineers, Tulsa District, specified the following services to be performed:

- 1) The gathering and study of all available information relating to previous cultural resources and studies in the project area.
- 2) "On-foot coverage of the entire land surface within the project area to determine specific site locations" and recording of such resources on state archaeological survey forms and appropriate maps.
- 3) Relocation of all previously located sites within the project area "for the purposes of updating their condition."
- 4) Conducting limited tests "to determine the areal extent and depth of cultural deposits." All sites must be photographed and mapped. Artifacts collected shall be cleaned, catalogued and analyzed."
- 5) Submission of a written report.
- 6) Completion and submission of "National Register nomination forms for individual sites which appear to meet eligibility criteria."

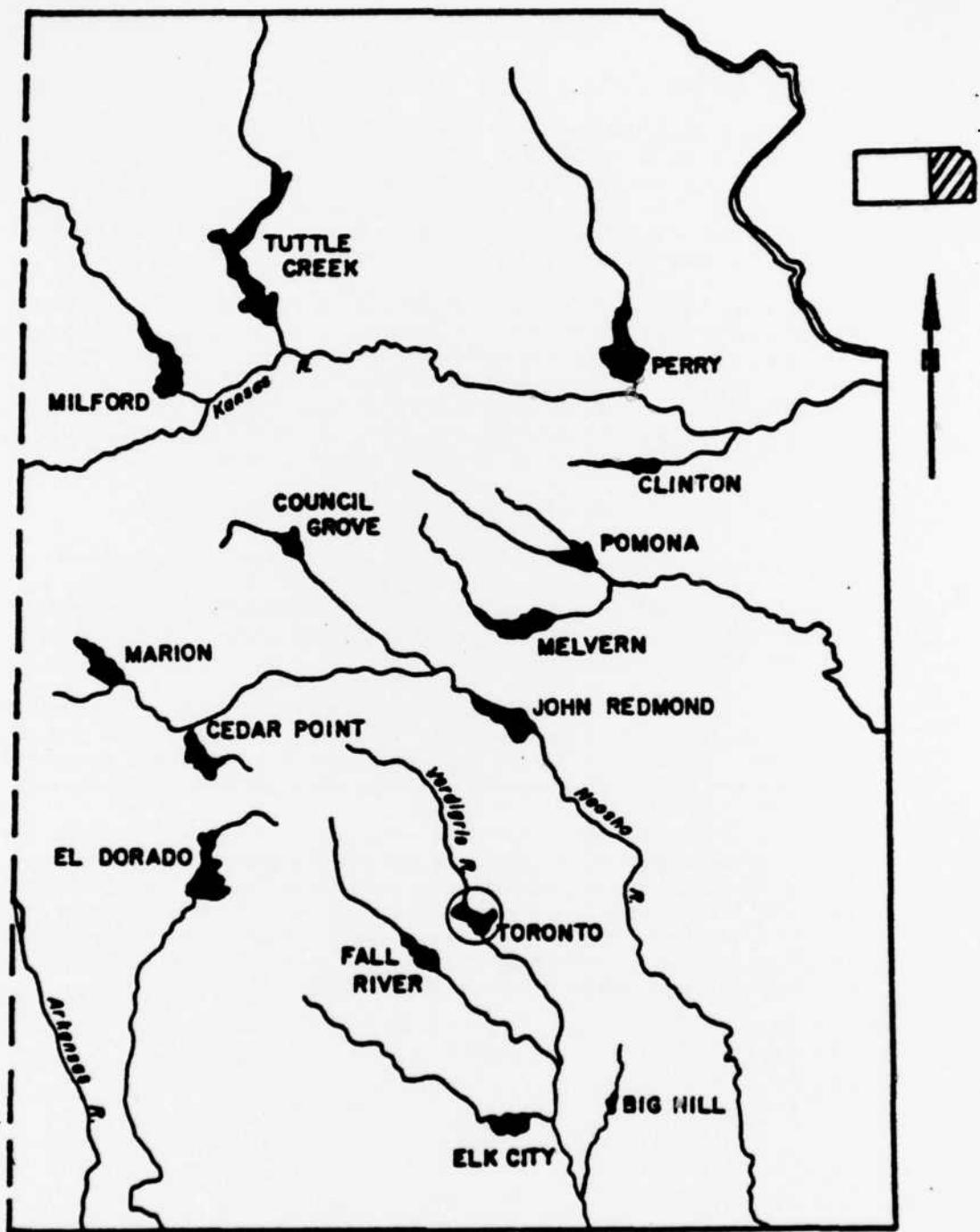


FIGURE 1. ARCHAEOLOGICAL DISTRICTS IN EASTERN KANSAS

### Research Design

The proscribed focus of this investigation on an inventory of resources on lands bounded by artificial ownership lines imposes limitations on the nature of any research design developed for it. Consequently, the following research goals could only be partially achieved, yet they should point toward future investigative needs for the Toronto district.

In an attempt to clarify geographic reference units, we shall consistently refer to somewhat standardized terminology. For culture historical purposes, Kansas essentially fits into a Central Plains "area." The upper drainage basin of the Verdigris River--essentially in Kansas--constitutes a "region." The focus of archaeological work around Toronto and Toronto Lake occurs in a "district," while the Cedar Creek and Walnut Creek clusters of sites form "localities."

Our specific research goals take on three major foci:

- 1) Refining and expanding the culture history for both the Toronto district and the Upper Verdigris River drainage basin. Much of the terminology used by Howard (1964) has been revised by more recent investigations by the Kansas State Historical Society at Elk City and Big Hill Reservoirs.
- 2) Developing a preliminary environmental setting for clusters of prehistoric sites (settlements) within one or more of the Toronto localities. Survey data will probably only allow possible reconstructions of former stream channels and attendant gallery forest zones.
- 3) Assessing the effects of changing land-use patterns on the visibility of archaeological sites and on the prospects for future damage from these changing patterns. Construction of Toronto Lake has significantly modified the patterns of natural deposition/erosion and of land-use by local residents. These patterns may have damaged or obscured some sites--apart from direct impact by the lake itself--and exposed other sites not previously visible.

## II. CULTURAL HISTORY OF THE UPPER VERDIGRIS REGION

Although the region in and around Toronto Lake has obviously been occupied by prehistoric peoples for a considerable period of time, its culture history is at best only sketchy. With the exception of archaeological work conducted around Toronto during the late 1950's (Howard 1964) prior to the completion of the lake, relatively little is known about this district of southeastern Kansas. To gain a broader perspective, it seems appropriate to analyze the Toronto district in the larger context of south central and southeastern Kansas in general.

### PREHISTORY

#### Paleo-Indian (11,000-6,000 B.C.)

States surrounding Kansas (Colorado, New Mexico, Texas, Nebraska, Iowa, and Missouri) have produced well documented and soundly dated remains of late Pleistocene big game hunters. These Paleo-Indians subsisted by hunting large Pleistocene mammals, most of which are now extinct, using distinctive chipped stone spear or dart tips. Several styles of Paleo-Indian points--Clovis fluted, Folsom fluted, and Plainview--have been reported in private collections in extreme southwestern Kansas (Glover 1978), but two other finds probably more appropriately reflect what might have occurred in southeastern Kansas.

Intensive archaeological and paleontological work in the Truman Reservoir region of southwest Missouri's Ozark Highlands and in the Kimmwick bone beds near St. Louis have uncovered extensive remains of Pleistocene fauna from numerous springs and bogs (Adams 1953; Saunders 1975; King and Lindsay 1976). It actually came as no great surprise when a Paleo-Indian Clovis fluted point finally appeared in association with mastodon bones at Kimmwick (Graham 1979), since similar finds had been claimed in the mid-nineteenth century from both regions (Koch 1857; McMillan 1976). Inadequate documentation and an unreceptive scholarly climate raised doubts about Koch's claims until this most recent corroboration. The Kimmwick find appears to represent the earliest (Llano) of three Paleo-Indian complexes from the Great Plains.

The Simonsen Site in western Iowa produced evidence of an ancient bison drive by Paleo-Indians of the latest (Plano) Paleo-Indian complex (Agogino and Frankforter 1960). The bison belonged

to an extinct species, and their hunters had camped on the kill site while butchering and processing meat.

Paleo-Indian big game hunters were nomadic, probably covering relatively broad ranges following the animal herds. They seem to have selected only the better sources of cherts from which to manufacture stone tools, and they either developed early trade networks or traveled long distances to a favored source. Consequently, we may expect to find no remains of housing, storage features such as pits, or thick rubbish deposits. We could expect to find kill sites and temporary campsites with hearths. It is distinctly possible that the middle (Lindenmeier) Paleo-Indian complex was not distributed as far east as Toronto despite the discovery by a private collector of a purported Folsom fluted point from Wilson County.

#### Archaic (8,000-200 B.C.)

As climatic conditions changed with the end of Pleistocene continental glaciation and many large game animal species died out, human populations east of the Rockies changed their subsistence patterns. They increasingly focused their hunting energies on smaller woodland animals--deer, turkey, raccoon, opossum, etc.--and developed means for intensive exploitation of wild plant products for food. While Archaic populations continued to move about to facilitate harvesting seasonal resources, their ranges diminished. They frequently camped in natural rockshelters as well as in open situations. Artifacts showing increased exploitation of plant materials include grinding implements, cupstones for cracking nut shells, and stone axes for woodworking. Remains of some houses have been found in late Archaic contexts.

Long records of the Archaic lifestyle are known from the Missouri and Mississippi River drainages in Missouri and southern Illinois. Modoc Rock shelter (Fowler 1959) along the Mississippi in southern Illinois yielded early dates around 8000 B.C.; the Koster Site (Struever and Holton 1979) on the lower Illinois River has produced a similar long stratigraphic sequence with even fuller information about the Archaic; Graham Cave (Logan 1952) along the lower Missouri showed some evidence of selective resource exploitation; Rodgers Shelter (McMillan 1971; Wood and McMillan 1976) contained a long record of Archaic people's use of the Truman Reservoir region from 8,500 to about 500 B.C.

A probable late Archaic occupation here has been summarized by Calabrese (1967: 13-18) from a series of very poorly defined components ranging through the Verdigris River drainage system in Lyon, Coffey, Greenwood, Chautauqua, and Montgomery Counties. Identification of these components depended on their distinctive yet similar

stratigraphic circumstances. The following sites contained hearths with no directly associated artifacts. Several produced quite consistent radiocarbon dates.

14GR307	1300 B.C.+140
14LY305	1830 B.C.+140
14GR309	
14GR301	
14CT302	
14CT304	
14MY323	
14MY309	1730 B.C.+180
14CF330 (Williamson Site)	1550 B.C.+100 & 1650 B.C.+190

Projectile points of the Lange (Bell 1958: 36), Afton (Bell 1958: 6), and Ellis (Bell 1960: 32) styles may relate to some of these components.

A fuller, but undated, late Archaic occupation has been described from Coffey County to the north of Toronto (Rohn, Stein, and Glover 1977). This Colvin Phase seemed to mark hunting and butchering camps with point styles resembling Table Rock (Perino 1968: 96), Ellis (Bell 1960: 32), Langtry (Bell 1958: 38), Palmilles (Bell 1960: 74), and Rice Lobed (Perino 1968: 76). Gathering activities were indicated by grinding stones and fresh water mussel shells.

Further west in the El Dorado reservoir region in Butler County, investigations by the University of Kansas have established a series of three distinctively Archaic horizons: the Chelsea, El Dorado, and Walnut phases. Although the Chelsea Phase needs a more exact definition, it appears to be contemporaneous with both Nebo Hill and Munkers Creek manifestations of the Archaic in northeastern Kansas (Leaf 1979).

Nebo Hill has been defined primarily on a distinctive lanceolate dart point with a diamond-shaped cross section, 3/4-grooved stone axes, and loaf-shaped manos (Shippee 1948, 1964). Fiber-tempered pottery has been reported along with these artifacts and, to date, marks one of the earliest occurrences of pottery in North America (Reid 1979).

On the other hand, Munkers Creek material from the vicinity of Council Grove in the Kansas Flint Hills has yet to be formally defined. The artifact assemblage consists of large lanceolate points, a distinctive knife form named Munkers Creek, chipped stone axes, and ceramic figurines (Witty 1969).

The El Dorado Phase (2000 B.C.-1400 B.C.), although similar in content to the Chelsea Phase, exhibits a wider variation in the overall artifact assemblage. Long, narrow, stemmed points with

straight to convex bases are the single most diagnostic feature of this phase, while drills, grinding stones, scrapers, and axes flesh out the remainder of the lithic inventory (Grosser 1973).

Finally, the Walnut Phase (1200 B.C.-A.D. 1) exhibits a somewhat new inventory in point styles. Typically points such as Gary, Langtry, and a Scallorn-like variant with corner notching are considered the diagnostic features of this phase. At the Snyder Site (14BU9), remains of deer and bison and the presence of several hearths helped illustrate the nomadic hunting pattern of this phase (Grosser 1973; Leaf 1979).

#### Woodland/Plains Woodland (Early Ceramic) Stage (A.D. 1-1000)

A subsistence economy based on the highly efficient exploitation of mammalian, aquatic, and plant resources clustered within the forested floodplains of streams allowed the peoples practicing Woodland culture to settle in relatively sedentary settlements. Streams and waterways probably doubled as primary avenues of travel and communication. Throughout much of the eastern woodland of North America, this cultural pattern was marked by the construction of earth mounds over graves, distinctive cord-marked pottery vessels tempered with crushed rock particles, and various styles of chipped stone artifacts.

Prehistorians usually subdivide the eastern Woodland cultural pattern into three broad styles--early, middle, and late--according to stylistic variations in artifacts and burial behavior. The peak of elaboration for this life-style was reached by the Middle Woodland Hopewell peoples in the Illinois and Ohio River valleys. Hopewell funerary ritual stimulated development of an extensive trade network for luxury goods that reached across the eastern two-thirds of what is now the United States.

The earliest known Woodland manifestation of interest to this project was defined by Marshall (1972) as the Cuesta Phase. Sites assignable to this phase have been located in the lower Verdigris River drainage and along the Fall and Elk Rivers. Marshall suggests this southeastern Kansas entity appears to have been influenced to a considerable degree by eastern Middle Woodland cultures. He notes that some sites have distinctive Havana ware pottery and that other pottery vessels exhibit later Hopewellian motifs (Marshall 1972).

During excavations at Elk City Reservoir, a house type assignable to Cuesta Phase was delineated. Houses tend to be relatively large with oval floors and widely set posts. Normally several structures would cluster closely together into villages, although dispersed single house sites occur along Big Hill Creek to the southeast (Rowlison 1977). Middens and burials of both humans and dogs

have been assigned to the Cuesta Phase, presenting arguments for fairly long periods of occupation (Marshall 1972). Dense concentrations of fire-reddened limestone and shallow trash-filled pits appear to be associated with these living structures.

Pottery from Cuesta Phase sites consists of vessels ranging from medium to large in size with conoidal bases. Decoration consists of tool impressions, cross hatching, rocker stamping, cord-wrapped stick impressions, and roulette impressions generally confined within incised zoning lines around the rim and upper body of the vessels. Clay (probably grog) seems to be the major tempering medium for these vessels (Rowlison 1977).

A wide variety of point types including Gary, Langtry, Ensor, Ellis, William, Bulverde, Scallorn, Motley, and Desmukes are associated with Cuesta Phase sites. Large to medium-sized bifacially-flaked blades, polished stone axes and celts, ornaments, and some smoking pipes were also recovered. Bone and shell were utilized as tools only to a limited degree (Rowlison 1977).

A second Plains Woodland manifestation that might have some impact on the Toronto locale would be the Butler Phase defined in the El Dorado Reservoir area. Presently dated at A.D. 250-800, this phase appears to be assigned more to a distinctive pottery type than to any other kinds of cultural baggage. This "Butler pottery" exhibits vertical cord-marking and limestone, sand or clay tempering with limestone the predominate medium. Rims and lips are generally flat, while bodies of these vessels are quite thick (Grosser 1973).

Lithics assignable to this phase include large corner-notched and stemmed dart points that show distinct affinities to Gibson, Dickson, Ensor, and Snyder. Scallorn and Sequoyah type points were also recovered. Bifaces, celts, grinding stones, and bone and shell tools round out the inventory known at present for this phase (Grosser 1973).

At the Curry Site (14GR301) in northeastern Greenwood County, two pottery types were described that could be expected to appear in the Toronto project locale. The first, named Verdigris, is typically limestone-tempered with a cord-roughened surface. The second, Greenwood, is typically tempered with indurated clay, surfaces are usually smooth with frequent fire clouds on the exteriors, and body sherds are relatively thick. The Curry Site was originally placed in the Keith Focus of the Plains Woodland, but has more recently been assigned to the Greenwood Phase (Calabrese 1967).

### Central Plains Phase (Middle Ceramic) (A.D. 800-1400)

Of those cultural entities occupying the Great Plains during this period, the cultural manifestation designated Pomona has the greatest relevance to the project area. Dated at present between A.D. 900-1500, the Pomona Phase appears to be restricted to the eastern one-third of the state of Kansas, generally east of the Flint Hills and south of the Kansas River. House structures attributable to Pomona are generally quite small and light in construction, although one structure at John Redmond Reservoir was quite large. Shallow basin-shaped pits are normally associated with Pomona structures and interior hearths occur only rarely. The former presence of these structures is marked by quite irregular posthole patterns, clusters of pits (often three), and frequently large quantities of fired clay daub. This heavy concentration of daub would suggest that at least part of the structure was covered with mud over grass (Wilmethe 1970; Rohn, Stein & Glover 1977).

Pomona pottery vessels tend to be globular in shape with vertical or occasionally outflaring necks around constricted orifices. Most rims are straight, although some exhibit exterior thickening. Most vessels were constructed from residual clays or subsoils containing a wide variety of impurities such as ferrous-manganese particles, fine sand, fossil shell, indurated clay, and weathered shale particles that served as temper. Rarely, crushed sherds and bone were added as tempering agents. Interiors of these vessels are normally smooth but exteriors are customarily cord-roughened. None exhibit decoration (Witty 1967; Rohn and Daniel 1979).

The lithic assemblage utilized by Pomona peoples consists typically of small, triangular projectile points with single or double side notches and an occasional single basal notch. Types commonly identified in Pomona assemblages include Reed, Harrell, Huffaker, Fresno, and Washita. Triangular, diamond-shaped, alternately beveled knife forms--Harahey--are frequently found at Pomona sites. Rather heavy chipped stone chopping tools or celts occasionally show a small degree of grinding on the working edge. Grinding slabs and grooved arrow shaft abraders round out the lithic inventory (Witty 1967).

Burials were normally placed in shallow graves, arranged in a flexed position, and then covered with limestone slabs. Grave goods are usually restricted to pottery vessels and bifacially flaked tools (Witty 1967).

Culturally, Pomona Phase materials appear to show direct relationships to earlier Plains Woodland and Woodland entities in Kansas thought to be contemporaneous with the Central Plains tradition. We do know that Pomona pottery frequently appears stratigraphically

with the late Woodland Verdigris ware from Greenwood County. Pomona subsistence encompasses utilization of limited floodplain horticulture, the hunting of both woodland and grassland animals, and the collection of plant resources from the two ecozones. Sites attributable to Pomona are typically loosely clustered into small dispersed settlements that can range along a water course for miles (Rohn and Daniel 1979).

#### Proto-Historic (Late Ceramic) Stage (A.D. 1400-1700)

Protohistoric times represent a period when cultural establishments were in existence just prior to, during, and after the initial contact with the first European explorers and traders. Typically, this period is associated with Coronado's explorations in search of "Quivira," which was later identified archaeologically as Great Bend Aspect and is today associated with the Wichita Indians of south central Kansas.

This period is also associated with the historic tribal groups of the prairies and plains such as the Kansa, Pawnee, and Osage. The period is best defined as that period when a deterioration in quality of such native manufactured items as chipped stone tools and ceramics accompanied the introduction of European-made items into the native artifact assemblages (Wedel 1959).

#### The Great Bend Aspect

Geographically, archaeological evidence for the Great Bend Aspect has been found and recorded in an area roughly defined by a triangle with its vertices at Larned (Pawnee County) in the west, Strong City (Chase County) in the east, and Arkansas City (Cowley County) in the south. Although the northern and eastern borders are generally accepted, the limited amount of archaeological investigation conducted west of the Arkansas River leaves some doubt concerning the extent of the southwestern boundary.

Temporally, the Great Bend Aspect falls within the protohistoric period, with the time range estimated to extend from about A.D. 1450-1700. These dates are based upon historical accounts, the presence of European artifacts at some of the northern sites, and the presence of Puebloan pottery sherds, dated by typology. As yet, no internal chronology has been established. It has generally been accepted that the people of the Great Bend Aspect and the Quivirans encountered by Coronado in 1541 and Oñate in 1601 were the same.

Wedel describes two foci for the Great Bend Aspect. One, the Little River Focus, is represented by sites in the Rice and McPherson County region to the north. Secondly, the Lower Walnut Focus sites are located in the southern portion of the range in Cowley County. Although Wedel (1959: 501) originally attributed the Marion sites to the Little River Focus, recent and more extensive work in the area indicated that this designation may not fit. The Marion sites have yielded artifacts typical of both foci.

Great Bend Aspect people appear to have lived in sedentary seasonal settlements. Many of the habitation sites in Rice, McPherson, Cowley, and Marion Counties were probably occupied during that period of the year when the primary subsistence activity was the cultivation of crops (e.g. maize, beans, and squash) on the stream valley bottomlands. At other seasons of the year, these villages were abandoned by the able-bodied who then hunted the bison on the upland prairies. During this time, they would set up seasonal camps of a less permanent nature near the hunting area. The Larned Site described by Monger (1970) is an example of this type of site.

Great Bend houses were constructed of pole and grass thatch, had a circular form, and varied from ten to eighteen feet in diameter. These conform to what was reported for Quiviran houses by the Coronado and Oñate expeditions. In his description of one Quiviran village, Oñate explained that the houses "were set in groups and that the groups were separated from each other" (Monger 1970: 1). The separation described here may reflect aspects of social organization.

## HISTORY

by

Marsha K. King

### Historically Known Indian Inhabitants

The region impacted by the Toronto Reservoir along the Verdigris River in southeastern Kansas was occupied by the Osage Indians when the first American settlers entered the valley. In a treaty negotiated with the Great and Little Osages in St. Louis, Missouri, on June 2, 1825, the United States recognized the Osage claim to lands in Missouri and the Territory of Arkansas. In the treaty the Indians ceded:

all claim to lands lying W. of the State of Missouri and Territory of Arkansas, N. and W. of the Red river, S. of the Kansas river, and E. of a line to be drawn from the head sources of the Kansas southwardly through the Rock Saline... (Royce 1971: 708).

The reservation set aside for the Osage by this treaty included the Toronto area within its described boundaries:

Beginning at a point due E. of White Hair's Village and 25 miles W. of the western boundary line of the State of Missouri, fronting on a N. and S. line so as to leave 10 miles N. and 40 miles S. of the point of said beginning, and extending W. with the width of 50 miles to the western boundary of the lands hereby ceded and relinquished (Ibid.).

By 1827 Osages were moving onto the reservation, although most of their settlements were located at some distance from the Toronto area. Prior to this time, the area had been used for hunting or access to hunting regions further west (Gilmore 1902: 839).

A portion of the Osage-ceded lands was granted by the United States to the New York Indians in a treaty at Buffalo Creek, New York, on January 15, 1838. As defined by the treaty, the southern boundary of this reservation was located just two miles south of the present town of Toronto, Kansas, placing the town within the reservation:

Beginning on the W. line of the state of Missouri, at the NE. corner of the Cherokee tract, and running thence N. along the W. line of the state of Missouri 27 miles to the southerly line of the Miami lands; thence W. so far as shall be necessary, by running

a line at right angles and parallel to the W. line aforesaid, to the Osage lands, and thence easterly along the Osage and Cherokee lands to the place of beginning, to include 1,824,000 acres of land, being 320 acres for each soul of said Indians as their numbers are at present computed (Royce 1971: 770).

This reservation was intended to provide a permanent western home for the Indians living in "New York, or in Wisconsin, or elsewhere in the U. S., who have no permanent homes." Included among these were the Seneca, Onondaga, Cayuga, Tuscarora, Oneida, St. Regis, Stockbridge, Munsee, and Brothertown Indians (Ibid.: 770-771). With the exception of some 32 individuals who located on the extreme eastern edge of these lands near Ft. Scott, the reservation was never occupied by its intended Indian occupants. In 1860, after the reservation remained virtually unoccupied, at least by the New York Indians, the government declared the Indian right to the reservation lands to be forfeited and the lands were returned to the public domain to be sold to white settlers. Those Indians who had moved onto the reservation were given allotments that were sold by act of Congress on February 19, 1873, with the proceeds going to the Indians and their heirs who had vacated these lands (Ibid.: 771).

The Osage reservation in southern Kansas was restricted as a result of the September 29, 1865, treaty of Canville, Kansas, in which the Indians ceded lands from the northern and eastern edges of their 1825 reservation to the United States. On March 27, 1870, the Secretary of the Interior designated a reserve for the Osage in Indian Territory on lands purchased from the Cherokees (Ibid.: 836, 852-854). In 1870 this Diminished Reserve was opened for white settlement at \$1.25 per acre as the Osage were removed from Kansas (Gilmore 1902: 841).

#### Early White Settlement

Prior to the 1854 Kansas-Nebraska Act and the various Indian land cessions mentioned above, the lands now incorporated in the state of Kansas were closed to legal settlement by Whites. Illegal White encroachment on Indian lands did occur prior to the official opening of the lands. Squatter settlers entered the area early, then filed preemption on their land choices as soon as the lands were legally opened for sale. One excuse given by these early settlers was the lack of adequate surveys and the resulting difficulty of determining the survey lines between available land and Indian lands. Government surveys did not commence in this portion of the state until 1856 when the northern boundary of the Osage reservation was surveyed (Woodson County Historical Society 1971: 11).

During February, 1855, the first census of the Territory of Kansas was taken. The Toronto Reservoir region lies within the sixth district as it was designated and described:

Sixth District.--Commencing on the Missouri State line in Little Osage river; thence up the same to the line of the reserve for the New York Indians, or the nearest point thereto; thence to and by the north line of said reserve to the Neosho river, and up said river and the south branch thereof to the head; and thence by a due south line to the southern line of the Territory; thence by the southern and eastern lines of said Territory to the place of beginning (Heiss 1968: ii-iii).

At this time the reported population of the entire sixth district was 250 persons (*Ibid.*).

#### Toronto: The Early Years

Toronto, Kansas, was laid out by the Toronto Town Company in 1869 after the land (the N $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Sec. 11, Twp. 26S., R13E.) was deeded to the town by Enoch and Sarah Jane Reeves for \$100.00. The Reeves had settled on the parcel of land in the Verdigris valley in 1857. For a brief period in 1874-75 "the name of the town was changed to Revere in honor of Enoch Reeves who was president of the Town Company at that time," but it was soon changed back to Toronto (Woodson County Historical Society 1968: 12-13). A plat of Toronto was filed with W. W. Sain, Register of Deeds, by D. V. Down, County Surveyor, on December 28, 1869. The town at this time consisted of 32 city blocks (*Ibid.*).

At the time of its incorporation there was a cemetery, tavern, and school, as well as several farms, within a short distance of the town. The tavern, with a reputation for being "a very rough place," was established in the Verdigris valley circa 1858. It was located slightly north and west of Toronto Point (Woodson County Historical Society 1970: 8). The first school taught in Woodson was held in Toronto (District No. 3) in a log cabin just west of the future town-site in 1858. The building was later moved and located on the public square in the south portion of Toronto (Andreas 1883: 1190). In 1864 the school had 49 enrolled pupils at a cost of \$90 for a three-month term with one teacher, Mr. R. W. Richardson (Kelly 1901: 595).

A group of Canadian settlers was responsible for naming the town. Toronto, meaning a "gateway," a "place of plenty," or a "meeting place," is an Indian name that these settlers brought with them from Ontario (Rydjord 1972: 427). The 1870 census lists twelve persons from "Canada West" who were involved in the naming of the town of Toronto (Morris 1971: 2).

Toronto grew slowly. Andreas (1883: 1195) credits this slow beginning to the town's extreme southwestern location within Woodson County, the knowledge that Toronto would never become the county seat, and the early lack of a railroad to facilitate transportation and communication. The Post Office was moved from Pleasant Grove to Toronto in 1870. This year also saw the inauguration of the Humboldt stage mail route through the town. Twelve years after its founding, in 1881, only two stores and some eight to ten houses comprised the total extent of the town (*Ibid.*). Other sources disagree with Andreas' assessment of the town, listing a larger number of accomplishments and structures by 1881. In 1871 the first doctor (Dr. Mann) arrived in Toronto (Woodson County Historical Society 1968: 13). Alexander Davis built the Toronto Mills, a combined saw and grist mill, in 1873. The saw mill had a capacity of 4,000 feet per day, and the grist mill turned out 60 barrels of flour per day. Power for the mills was provided by a 25 horsepower engine. Davis sold the mills to W. S. Lockard, a Canadian settler, who was listed as a farmer in the 1870 census (Andreas 1883: 1196; Morris 1971: 2). The grist and saw mill is mentioned by Tuttle (1876) as is "a furniture factory" as the manufacturers present in Toronto at that time.

A period of growth for Toronto commenced in 1882 with the arrival of the St. Louis, Ft. Scott and Wichita Railway, which later became the Missouri Pacific (Duncan and Scott 1901: 586). Within the following year, some eighty new buildings were started. W. H. Jones established the Toronto Topic as the area's first newspaper in 1883 (Connelley 1915: 2295). Among the businesses and industries present in Toronto in 1883 were:

6 general stores	2 hotels (with a third under construction)
1 grocery	2 doctors
1 drug store	2 real estate agencies
1 hardware store	2 livery stables
1 meat market	2 millinery shops
1 furniture dealer	2 lumber yards
2 harness shops	and the mill (Andreas 1883: 1196)

The boom continued during the following years. The Atchison, Topeka and Santa Fe Railroad constructed a line through Toronto in 1884. This increased the number of persons passing through the area, and greatly aided in the settlement and development of the western portion of Woodson County and the eastern portion of Greenwood County (Duncan and Scott 1901: 596).

A broom factory was opened in 1885 by C. B. Stuart, manufacturing a broom "which for neatness and durability" could not "be improved on by any of the larger factories" (Buck 1901: 608). During the same year a steam powered saw mill was opened several miles south of Toronto on the Verdigris River, contributing its product to the growing town and region. Two newspapers, the Toronto Topic, a Democratic paper, and the Toronto Register, a Republican paper, disseminated

news to Toronto and the surrounding valley. Also doing business at this time was the Toronto Bank, under the directorship of Mr. Everett and Mr. Kellogg, with a capital of \$10,000 (Kansas State Board of Agriculture 1887: 591-592).

The period of growth continued through the end of the 1800's. Another bank opened in Toronto in 1892 with a starting capital of \$5,000 (Buck 1901: 609). Toronto, as the only town and railroad connection in the area, soon became an important transportation and agricultural center, processing and shipping the products from the region's farms. It was also the business and commercial center, serving the townspeople and rural populations of southwestern Woodson, eastern Greenwood, and northwestern Wilson Counties. The rural population served by the town was considerably greater than that of Toronto, but was scattered on farms and ranches over the Verdigris valley and surrounding uplands. Cattle, other livestock, and field crops, especially corn, oats, and wheat, were the major agricultural products of Toronto area farmers (Andreas 1883: 1190).

A setback was encountered by the thriving town in early 1893 when a fire destroyed a large portion of the business district. Photographs (provided by Mr. Moon and Mrs. Swilley, interviews 1980) indicate that the fire razed the wooden structures on the south side of Main Street leaving only one building, the only brick building on the block. This structure still stands in Toronto, now housing a grocery store. The town recovered from the fire and rebuilt the businesses using brick and stone and incorporating fire walls in the new structures (Moon interview 1980).

The Toronto Roller Mills were constructed during the winter of 1894-95 by W. P. Dickerson, on a small stream on the southwest edge of Toronto. The mill itself was a 28 by 60 foot two-story structure. An engine room, for the 35 horsepower engine and boiler, and a storage house were added to increase the capacity of the mill to handle business demands. The mill could turn out some 50 barrels of flour and 400 sacks of other grinding per day. Three brands of flour processed by the Roller Mills were "Gem Patent," "Pride of Toronto," and "Wild Rose." The mill flourished for a number of years, providing a market place for grain raised by local farmers as well as processing of feed grains and corn meal (Woodson County Historical Society 1971: 608).

Drilling for natural gas, a popular enterprise in turn-of-the century Kansas, caught the attention of businessmen and citizens of Toronto in 1899. Three wells were drilled, at a cost of nearly \$1,000 each and the first two were abandoned. Number Three was drilled to 1,000 feet with more promising results. It was hoped that the single well would provide enough gas to light the entire town, but after pipes were laid it was determined that the flow of gas was insufficient to provide adequate lighting (Buck 1901: 609). Oil and gas

exploration continued in the following years; from 1904 to 1915 scattered test wells were drilled along the southern and western borders of Woodson County (Moore and Haynes 1917: 205). The Toronto Field was opened in 1913 with the discovery well located in Sec. 16, Twp. 26S., R.13E., within the project area. Both oil and gas were found in commercial quantities in the field (Goebel, et al 1960: 162).

#### Toronto: The Twentieth Century

The opening years of the twentieth century saw Toronto as a thriving and progressive third class city, the second largest town in Woodson County. In 1901 the population of Toronto neared the 800 mark (Buck 1901: 608). The population fluctuated during the first three decades of the 1900's, reaching a peak in 1919 with 796 persons (Kansas State Board of Agriculture 1921: 518); for complete population information see Table I).

Toronto business also appears to have peaked during the early years of the century. A partial listing of stores and businesses in the town during these years includes: the First National Bank, the State Bank, two hotels, depots for both the Santa Fe and Missouri Pacific Railroads, two hardware stores, two garages, three groceries, P. O. Hair's Undertaking Parlor, the Ne-Go Theater, a drugstore, a discount store, C. F. Webb and Co. clothing and grocery store, Staples' Barbership, the telephone office, locker, butcher, millinery, bakery, candy shop, restaurants, several doctors and a dentist office, and J. H. Afflerbaugh's blacksmith and carriage shop (Swilley interview 1980). In 1909 Mr. E. E. Kelley purchased the Toronto Republican. With circulation covering major portions of Woodson, Greenwood, and Wilson Counties, the paper was a chief medium of news in this part of the state, and "exerted an influence as a republican organ" (Connelley 1918: 2295).

Saturdays were busy days in Toronto. Farmers and townspeople and their families spent the day in town shopping and visiting with friends. The streets were full of people and shops stayed open until midnight, closing only after the second show at the theater was over. Parades, school plays, and holiday celebrations were all reasons for large gatherings of local people. During World War I Toronto men leaving for military service were given a grand farewell and paraded to the depot. Following the war on each Armistice Day, Toronto sent a float and large contingent to the parade in the county seat, Yates Center (Swilley interview 1980).

Toronto declined slowly from its thriving appearance in the 1920's. The collapse of the economy, banks, and stock market, and the depression hit Toronto as they did the rest of the country. The State Bank closed, causing many individuals and businesses to lose all their savings and money (Ibid.). The economy of the town was

TABLE I  
TORONTO POPULATION STATISTICS

Date	Toronto City	Toronto Twp. (less city)	Total Twp.
1870*	---	---	340
1880	---	---	553
1885	---	1,196	1,196
1890	555	677	1,209
1895	607	767	1,374
1900	725	883	1,608
1905	680	788	1,468
1910	754	780	1,534
1915	694	704	1,398
1920	760	622	1,382
1925	719	612	1,331
1930+	706	---	1,336
1935	656	594	1,250
1940	719	602	1,321
1945	609	438	1,047
1950	589	451	1,040
1955	599	---	---
1960+	524	---	786
1965	472	---	---
1970+	431	---	733
1975#	497	---	---
1980+	467 (unofficial)	---	---

\*(Andreas 1883:1189)

+(U.S. Bureau of the Census 1930, 1960, 1970, 1980)

#(Kansas Department of Transportation 1975-76)

further strained by the closing of the Santa Fe Railroad depot and rail service in 1935 (Stockebrand 1966: 76). The town's decline did not end with the booming war economy of the 1940's, nor did the economy of Toronto experience much recovery during the decade of the 50's. U. S. Highway 54 was constructed through Woodson County in the 1950's, but bypassed Toronto to the north. This had the effect of removing the town from the mainstream of travel. Adding to this isolation of Toronto was the 1958 discontinuance of Missouri Pacific service and closing of their depot (Ibid.: 77). The population declined from 706 in 1930 to 589 in 1950 (Kansas State Board of Agriculture 1931, 1950). By 1960 the population had declined further to 524. The next decennial census (1970) reported only 431 persons living in Toronto (U. S. Bureau of the Census 1970).

Toronto in 1980 does not appear to be the same thriving and progressive town. It is a sleepy quiet town of 467, a large percentage of whom are older retired people (Ibid. 1980). There is a noticeable shortage of young people in the town. One reason given for this is the few businesses in town that hire more than two or three persons, and none hire more than ten to twenty. Young people who might otherwise wish to live in Toronto are forced to leave the town to seek employment in Yates Center, Eureka, Wichita, or elsewhere.

The business district of Toronto looks very different in 1980. Many of the stores are gone, as is the band shell in the intersection of Main and Broad Streets which served as the focus and starting point of many of the parades and celebrations of an earlier day. The list of Main Street businesses in Toronto is much shorter: the First National Bank, locker, library, two groceries, a gas station, lumberyard, craft shop, real estate agency, and a senior citizen's center. The newspaper was purchased by the Yates Center paper and is now printed and distributed from the county seat. The undertakers servicing Toronto also serve Eureka and Yates Center and are located in these towns. Even the high school is now located outside of Toronto in combination with the Eureka school district. This leaves the town with grade school facilities only (Toronto Librarian interview 1980).

Isolated by the lack of railroad service and distance from the main highway, and lacking in employment opportunities, Toronto has been unable to grow or even maintain its past stature. The completion of the Toronto Reservoir in 1960 spurred a temporary revival of the town and area real estate, but the revival was short-lived when there were fewer visitors to the lake than anticipated.

### III. THE TORONTO LAKE SURVEY

#### Conditions

The Toronto survey encountered a series of problems both in the location of new sites and in relocating sites previously reported for the locale. Since the survey was confined solely to lands owned and managed by the U. S. Army Corps of Engineers, certain theoretically good locations for sites were excluded from investigation because they fell outside the boundaries of Corps property.

The pattern of land usage has altered considerably in this area since the completion of the lake in the late 1950's. Lands once extensively farmed have been allowed to go fallow because of regular flooding by both Walnut and Cedar Creeks. Many of the sites described by Howard (1964) to be in cultivated fields are now heavily overgrown with grasses and forbs and, in some cases, stands of young oak trees have completely obliterated ground surfaces once devoted to agriculture.

In general, ground conditions over the majority of the survey area afforded roughly 50% visibility and quite frequently more. Under such conditions sites were readily detectable. Much land was under cultivation and, at the time of year this survey was initiated had been recently plowed or harvested, thus exposing the ground surface to visual examination. Approximately 35% of the survey was conducted under these favorable conditions (Fig. 2).

Less favorable conditions occurred along the lower reaches of Walnut Creek just before it enters the lake, and to some degree along both banks of the Verdigris River. Many formerly cultivated lands have reverted to a state of wild vegetation. Other plots served as pasture in which the growth of trees and native grasses made surface visibility virtually impossible.

Siltation from the annual flooding of the Verdigris River has totally obliterated zones once reported to contain archaeological resources. In some cases, the face of one-time farm land has now become a series of alluvial mounds and runoff areas, and the probability of locating new sites or relocating those already reported has become almost nonexistent.

To deal with these various conditions, a multifaceted approach to the survey of the Toronto Lake area was needed in order to recover as much information as possible.

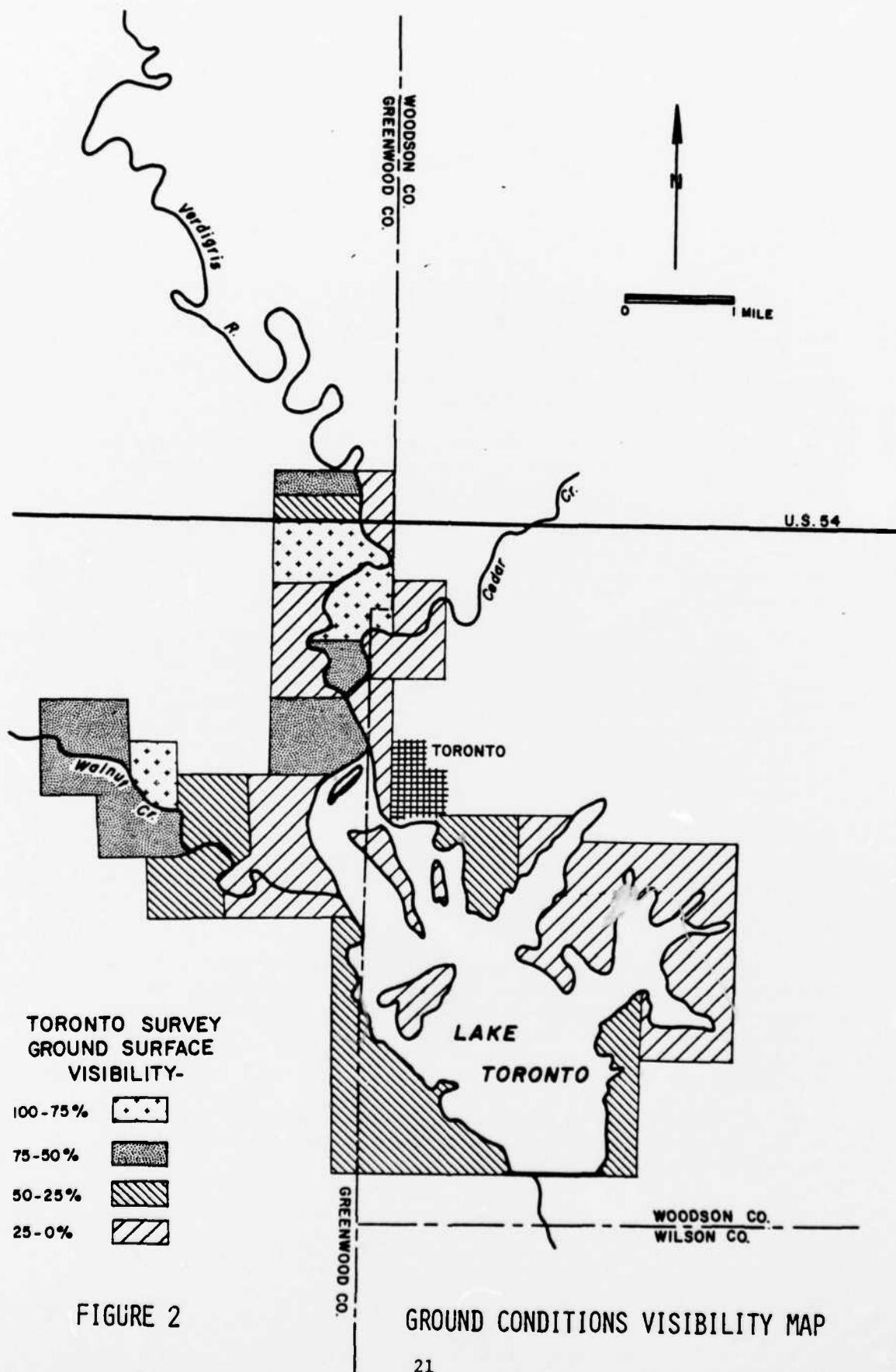


FIGURE 2

## Approach and Methods

### Archival Search

The search for existing knowledge of cultural resources within the Toronto Lake Project area involved thorough examination of published literature describing investigations of Kansas prehistory and history. Works such as An Introduction to Kansas Archeology (Wedel 1959), Howard's (1964) report on the survey and excavations of the Toronto area, and several volumes on archaeological work in the Verdigris drainage system of Kansas (Rohn, Daniel and King 1972; Calabrese 1967; Marshall 1972; Rowlison 1977) were examined in detail.

Both the National Register of Historic Places and the Register of Historic Kansas Places were consulted to identify any already defined significant sites within the project area. Archives and files were searched for site records or unpublished notes about the area in the Kansas State Historical Society State Archaeologist's office and in the Archaeology Laboratory at Wichita State University.

Additional references were obtained from Wichita State University's Ablah Library, Butler County Historical Society, Greenwood County Historical Society, Woodson County Historical Society, and Johnson County Public Library. Aerial photographs of the Toronto area in both Woodson and Greenwood Counties were obtained from the offices of the U. S. Department of Agriculture in the two counties. Records and publications about soils at the county soil agent offices of the U. S. Soil Conservation Service in Eureka and Yates Center were also consulted.

The bulk of information about cultural resources gathered from these sources pertained largely to investigations conducted in the late 1950's. The majority of sites discussed either lie beneath the present-day flood pool of Toronto Lake or near its shoreline.

### Informant Interviewing

Information concerning cultural resources available through interviews with residents in and around Toronto was quite meager and frequently not too accurate. In recent years the population of the Toronto area appears to have been on the decline, and thus many collectors who were once familiar with the area no longer reside in the vicinity of the project. Several collectors from Eureka in Greenwood County were contacted, but only one had collected from the Toronto area and from one site examined during this survey.

Some very useful help was obtained from Mr. Moon of the First National Bank of Toronto. Personnel in the U. S. Army Corps of Engineers office at Toronto Lake and the State Park office, though not particularly knowledgeable about cultural resources in the area, were extremely helpful in describing conditions we should encounter.

### Field Work

Intensive pedestrian survey was conducted over 3,523 acres of land owned by the federal government and managed by the U. S. Army Corps of Engineers at Toronto Lake. The process involved close visual inspection of the ground surface as a survey team of two or three members walked back and forth across the property. When evidence of a resource was recognized, the survey team recorded its nature, extent, and other pertinent data on field survey forms, plotted its location on U.S.G.S. topographic quadrangle maps, photographed the setting, and collected a representative sample of artifact materials. Occasional sample shovel tests were dug to expose the nature of deposit and record its thickness.

A second level of survey was required for those areas, especially along the Verdigris River and the lower reaches of Walnut Creek, that were heavily wooded and where ground visibility was frequently less than 10%. Under these conditions, series of shovel tests were conducted in all areas that would appear suitable for occupation. Though this method produced only one new site, a great deal of information concerning recent silting at Toronto was gathered.

### Expenditure of Time in Field Work

<u>Date of Survey</u>	<u>Crew Size</u>	<u>Hours in Field</u>	<u>Person Hours in Field</u>
October 6, 1979	2	8.5	17
October 7, 1979	2	8.5	17
October 12, 1979	3	6	18
October 13, 1979	3	8	24
October 14, 1979	3	8	24
October 19, 1979	3	6	18
October 20, 1979	3	8	24
October 21, 1979	3	8	24
October 26, 1979	2	6	12
October 27, 1979	2	8	16
October 28, 1979	2	8	16
November 9, 1979	3	6	18
November 10, 1979	3	8	24
November 11, 1979	3	8	24
November 16, 1979	1	3	3
November 17, 1979	1	7	7
November 18, 1979	1	7	7
November 23, 1979	2	7	14
November 24, 1979	2	8	16
November 25, 1979	2	8	16
November 30, 1979	2	4	8
December 1, 1979	2	8	16
December 2, 1979	2	8	16

<u>Date of Survey</u>	<u>Crew Size</u>	<u>Hours in Field</u>	<u>Person Hours in Field</u>
January 4, 1980	1	8	8
January 5, 1980	1	8	8
March 12, 1980	3	8	24
March 13, 1980	4	9	32
March 14, 1980	3	9	32
March 15, 1980	3	4.75	14.25
March 6, 1981	3	5	15
March 7, 1981	3	8	24
June 24, 1981	2	8	<u>16</u>
TOTAL - 32 days		232.75	552.25

#### IV. CULTURAL RESOURCES IDENTIFIED

The intensive cultural resource survey of the Toronto Reservoir project area identified 28 prehistoric archaeological sites and 2 historic sites within the property boundaries. Twenty-two of the archaeological sites were newly defined. Of the 42 previously recorded sites, 8 could be relocated and reevaluated. The remainder had either been destroyed, buried by recent alluviation from fluctuating lake levels, or inundated. All the historic sites have been newly defined.

All sites have been assigned numbers in the State of Kansas system and are described individually in numerical order. Previously recorded sites that could not be revisited are described from available published (Howard 1964) and archival data. Wherever possible, new survey records have been drafted for these sites. Several previously recorded sites fall outside the project boundaries and are not included in this listing. They are briefly mentioned at the end of this chapter.

All site locations are shown on the project area map in the pocket inside the back cover of this report.

##### Archaeological Sites - Greenwood County

14GRI

###### Description:

Originally surveyed in 1953 by Moorman, this site was described as lying on a ridge some 100 feet south of Walnut Creek and just west of the old Walnut Creek bridge. The site was revisited in 1956 by Johnson who estimated its size to be 780 by 120 feet.

###### Surface Collection:

The 1956 collection contained one projectile point base, one knife fragment, chert flakes, and fire-altered limestone.

###### Interpretation:

No interpretation of this site was offered by either Moorman or Johnson, but Howard in 1964 suggested it may have been a minor campsite.

Condition:

Presently beneath the waters of the Toronto Lake conservation pool. It could not be revisited.

Project Impact:

Inundated by the conservation pool.

Recommendation:

None. Our sparse knowledge of this site and its present inundated condition would not warrant inclusion on the National Register of Historic Places.

14GR2

Description:

Surveyed in 1956 by Johnson, who described the site as occupying a knoll some 100 feet from the Verdigris River. The size of the site was estimated at 420 by 225 feet.

Surface Collection:

Three separate collections were made from the site during 1953, 1956, and 1957. Materials recovered consisted of two rim sherds, thirty-six (36) body sherds, two points, one tip fragment, three knives, four scrapers, three cores, two complete and one broken mano, and one chipped axe. Animal bones and mussel shells were also collected.

Interpretation:

In 1964 Howard reported this site to be a minor village that appeared to be affiliated with the Upper Republican Aspect of the Central Plains Tradition.

Condition:

Present condition of site is unknown because of its being outside the provenience of this survey.

Project Impact:

None.

Recommendation:

Johnson recommended test excavation for 14GR2. We recommend revisit to locate the site and ascertain its present condition.

Description:

The site lies on an old terrace remnant along the western side of a former channel scar in which water stands for most of the year. The Verdigris River is approximately 650 meters to the west. A small gully of recent erosional origin cuts the site into two portions designated Loci A and B. Locus B occupies a distinct and separate elevation from Locus A. The site--both Loci A and B--measures 85 by 20 meters, and it rests on the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Lithic scatter was quite extensive across the entire site. For a clearer understanding of this site, the collections from Loci A and B will be discussed separately.

Locus A - Locus comprises the sloping area of the site from the top of the terrace to the gully on its southern periphery. Its surface collection included one small Fresno-like point with straight base and a distinct basal notch near one barb (Fig. 3a); three flake scrapers; one biface (Fig. 3c); three utilized flakes; and 29 waste flakes. No pottery or other materials were found.

Locus B - Locus B covers that area south of the gully on a small rise of ground. Its surface collection included one fragment of a plano-convex end scraper, one biface midsection probably from a large point (Fig. 3b), one possible preform exhibiting heat treatment that apparently rendered the preform useless for producing a point, and a piece of sandstone that exhibits heating and pecking on one side. The function of this last piece is unknown.

Testing:

No subsurface testing was conducted.

Interpretation:

When Howard first surveyed this site in 1957, he was unable to determine its use or its cultural affiliation. Although the materials collected during this survey do not solve these problems totally, two conclusions appear reasonable. The overall extent of the site and the rather abundant lithic scatter suggest a campsite used periodically at least. It could even have been a major camp, but it obviously was in use over a fairly long period of time. The presence of the Archaic-looking point and the absence of pottery would suggest an Archaic cultural affiliation.



FIGURE 3. 14GR201 - ARTIFACTS

Condition:

At the time of survey, the site was located in an open field planted in milo. Erosion seems to have recently carved the gully between Loci A and B and erosional cuts in Locus A. Continued farming has undoubtedly damaged a good portion of this site.

Project Impact:

The site is situated above the level of the conservation pool but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

Because of the danger from erosion and farming, it is recommended that this site be revisited periodically to monitor any changes in its condition. An intensive test of the site should be conducted in the near future to determine the extent of damage already done to the site, verify its Archaic cultural affiliation, and assess whether enough information remains to meet the eligibility criteria for inclusion on the National Register of Historic Places.

14GR202 - THE SECOY SITE

Description:

This site is located south and east of the Verdigris River along the second terrace. An old railroad grading passes just to the west of the site, running in a northwest-southeast direction. An access road to the field where the site is located literally cuts it in half from east to west (although a considerable amount of material was found in the road itself). This site, like 14GR201, has been divided into two loci because the locus designated as B appears to have been caused by farming. The site is located in the Verdigris member of the Verdigris-Osage Soil Association, but about half way down the slope of the terrace, a very bright orange sandy soil filled with gravel is eroding out. Yet even in this eroded area, a great deal of cultural material was collected. The overall dimensions of the site including Loci A and B are 300 by 100 meters.

Surface Collection:

The surface collection from 14GR202 was undoubtedly the largest gathered during the entire survey and covered the greatest area of any site located in the project area (Table II). Collections from each of the site's two loci will be described separately.

TABLE II. SURFACE COLLECTIONS FROM SITE 14GR202

<b>Points</b>	
Gary	3
Gary Preform	1
Langtry style	3
Broken stems - contracting	6
Expanding stemmed	3
Corner-notched (Snyders style)	1
Broken stems - expanding	3
Scallorn style	2
Fresno style	1
Tips	8
Midsections	7
<b>Scrapers</b>	
End	5
Flake	3
Biface	2
<b>Drill fragments</b>	2
<b>Bifaces and fragments</b>	20
<b>Hammerstone</b>	1
<b>Worked hematite</b>	1
<b>Pottery fragments (sherds)</b>	
Grog-tempered, plain surface	3
Grit-tempered, cord-roughened	3
Grit-tempered, eroded	4
Historic porcelain	2
<b>Utilized flakes</b>	20
<b>Unmodified flakes</b>	260

Locus A - This locus covered the north slope of the terrace ridge and most of the terrace top. Material collected from Locus A consisted of three Gary points (Bell 1958: 28) (Fig. 4 b and c), three Langtry style points (Bell 1958: 38) (Fig. 4 d and e), six broken stems (contracting toward the base) that could come from Gary and Langtry points, three large points with expanding stems, one large flat corner-notched point that seems to resemble the Snyders style (Bell 1958: 88), three broken stems (expanding toward the base) that could have come from corner-notched points (Fig. 5 e), two Scallorn style points (Bell 1960: 84) (Fig. 5 b and c), and one Fresno (Bell 1960: 44) point. One of the contracting stems was made from a brown chalcedony that proved to be the only piece of this material recovered during the entire survey. Eight point or knife tips were found and seven midsections. Scrapers included five plano-convex end scrapers, three flake scrapers, and two biface scrapers (one showing cortical surface). Two drill fragments were collected. One of these may have been a point that was later modified into a drill, while the other is of white chert with what appears to be heat treatment along its edges. The 16 bifaces collected exhibit the full range of cherts found in the project area. Three of these bifaces appear to be either knife or point preforms, while three others, although very fragmentary, do look as if they may have been scrapers. Only one hammer stone was collected, and this piece was simply a utilized pebble from the brownish gravels common to the area. One piece of worked hematite was found with what appears to be sawing marks on one side. Ten pieces of prehistoric pottery were found. Three of these pieces are plain surfaced, buff in color with dark interiors, and tempered with baked clay particles or grog (Fig. 6). One of these exhibits a fire cloud on both surfaces. Three other pieces have bright orange exteriors with black interiors; they are all cord-roughened with grit tempering. The final four pieces are very small and eroded. They appear to be grit-tempered, but any surface decoration has been obliterated. Two pieces of historic porcelain were also found. One piece of white china represents the base of a cup or small pot. The other piece has a blue on white design, but is very tiny.

Locus B - Locus B occupies a small rise to the southeast of Locus A. This rise appears to have developed through agricultural activity such as terracing. Materials were relatively scant although two points and four biface fragments were found. There was no pottery. The remaining lithic assemblage from both loci contains twenty utilized flakes and 260 waste flakes.

Testing:

No subsurface testing was conducted.

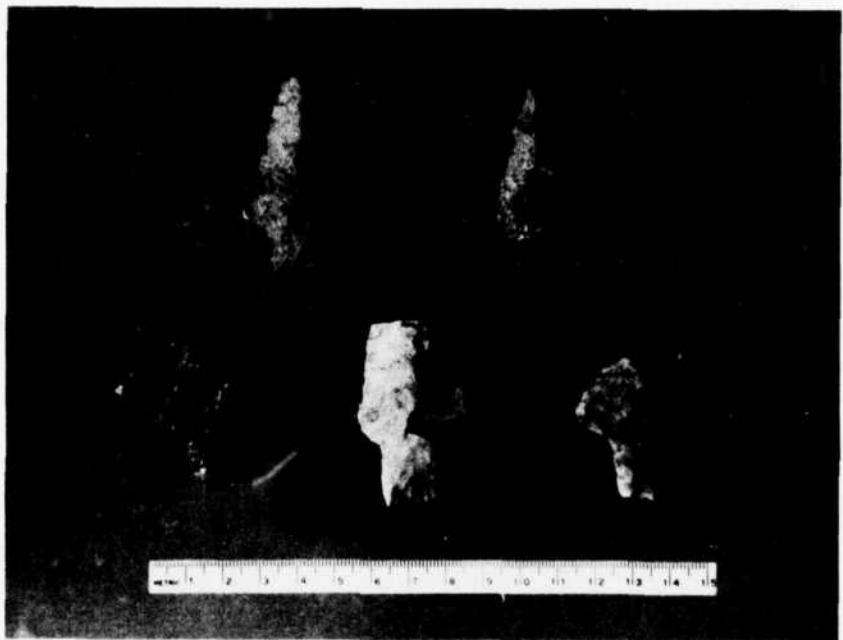


FIGURE 4. 14GR202 - GARY AND LANGTRY STYLE POINTS

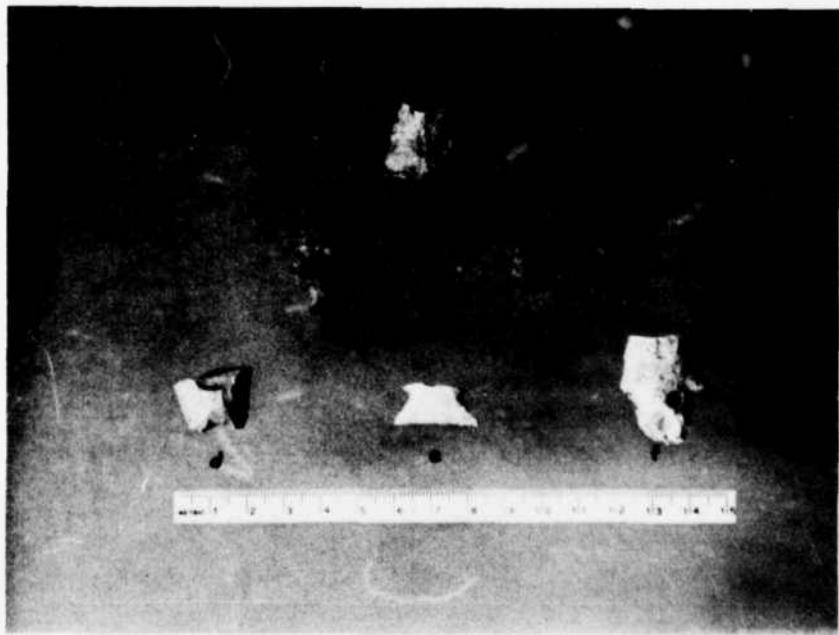


FIGURE 5. 14GR202 - POINT FRAGMENTS

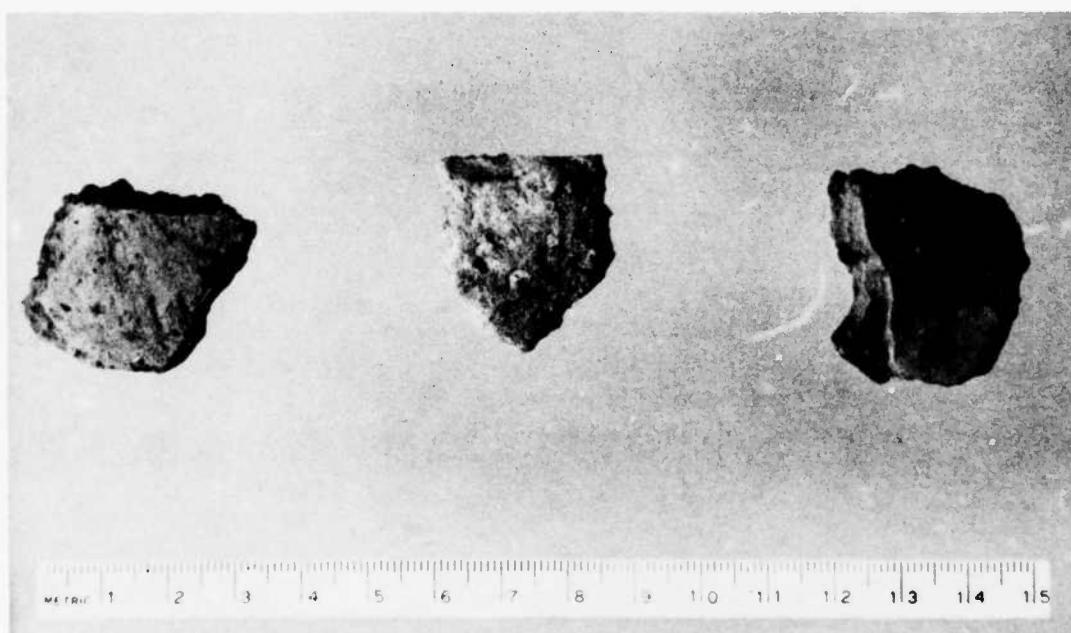


FIGURE 6. 14GR202 - POTTERY SHERDS

Interpretation:

Howard reported this site to be a probable village with Kansas City Hopewell and Keith Focus components. However, our surface collection contained no positive evidence for the very specific Kansas City Hopewell assignment. Additionally, several new Woodland manifestations--i.e. Cuesta Phase and Greenwood Phase--have been defined for southeastern Kansas since 1957 (Calabrese 1967; Marshall 1972). One of these would probably be more appropriate than the Keith Focus designation. Yet, the surface collection exhibits sufficient ambiguity to limit our cultural designation to a generalized Middle Woodland component, possibly either Greenwood or Cuesta Phases. There also appears to be some Late Woodland material, but again a name or designation is not warranted from the material we recovered. This does appear to be an extensive village site occupied during both Middle and Late Woodland stages.

Condition:

At the time of resurvey, the site was planted partially in milo and partially in winter wheat. The site appears to be in fairly good condition, although the terrace slope is eroding significantly, showing the usually deeply buried Mason Soil in its weathering face. Continued farming of this field and the erosion from regular flooding will continue to damage this site at a growing pace.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding. A 1960 aerial photograph shows the site as an island in the flooded lake. Under such conditions, wave action could cause serious erosion.

Recommendation:

Ultimately this site may require extensive mitigation to guard against information losses brought on by steady erosion along its north and west terrace slopes. Testing along these slopes would only increase the rate of erosion. Preservation would probably require expensive riprapping and loss of the field to cultivation. We recommend periodic revisits to the site to monitor changes in its condition, and limited testing on the terrace top to determine the depth of cultural deposits, precise site extent, and information potential. Although the numbers and categories of materials collected from 14CR202 suggest a potentially rich and important site, further investigation will be needed to fully assess this site's eligibility.

Description:

This site was originally reported in 1956 by Johnson, who estimated the area of occupation to cover 400 by 300 feet. It lies south of the Verdigris River on top of an old terrace remnant that runs due south from the present course of the river. The presently observable site measures 140 x 40 meters, and rests on the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Lithic scatter, although sparse, was collected over a fairly broad area. Twelve waste flakes, two of which appear to be utilized, comprise the prehistoric collection from this site. Two pieces of white crockery and a single glass fragment rounds out the inventory for this site. Johnson reported three pieces of "worked stone," mussel shell, and fragments of fire-altered sandstone.

Testing:

Two shovel tests were dug in an area of Johnson grass along the western border of this site. Neither produced any cultural materials.

Interpretation:

Howard's (1964) report offered no interpretation for this site beyond the possibility it could be a minor camp. Information gathered during this resurvey provided no further illumination of this subject.

Condition:

Relocated during the spring of 1981, this site was found in a cultivated field planted in winter wheat. The western part of this field is covered in dense native grasses, and the site appears to extend into this area.

Project Impact:

The location of this site lies above the level of the conservation pool, but within the limits of the maximum flood pool where it is prone to periodic flooding. Evidence of seasonal flooding may be seen in the driftwood and debris scattered throughout the site's general vicinity.

Recommendation:

This site should be revisited periodically to enhance the existing collection, to accurately determine site boundaries, and to monitor any changes in its condition from flooding. Present knowledge

of the site does not meet eligibility for inclusion on the National Register of Historic Places.

14GR204

Description:

Recorded by Johnson in 1956, this site was described as occupying a slight rise on the west side of the Verdigris River. Site dimensions were given as 100 by 500 feet.

Surface Collection:

One point fragment, a knife fragment, eight chert flakes, and one piece of worked mussel shell were collected. In addition, some fragments of fire-altered sandstone were observed but not collected.

Interpretation:

No interpretation concerning the type of site or its cultural affiliation was offered in Howard's 1964 report. The site description and surface collection do suggest it supported some form of habitation.

Condition:

This site's recorded location is presently in a densely wooded area. Subsurface shovel testing failed to relocate the site, but did reveal the presence of a very deep layer of recently deposited silt suggesting frequent flooding of this locale.

Project Impact:

The recorded location for this site lies above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

Until this site can be relocated, no further recommendations are feasible. Whenever the general locale's condition should change through denudation or erosion, additional attempts should be made to relocate this site. Present knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR206

Description:

Surveyed in 1956 by Johnson, who described it as lying on a slight rise on the northeast side of the Verdigris River. This site measured approximately 400 by 400 feet.

Surface Collection:

One scraper, a fragment of a knife, and two "stone fragments" comprised the collection.

Interpretation:

Although a cultural affiliation could not be determined from the collection, the site was designated a minor camp.

Condition:

In recent years, the recorded site location area has lain fallow allowing the growth of very dense brush and tall native grasses. Shovel tests failed to relocate this site, but did reveal a very deep layer of banded sediments that may have buried the site.

Project Impact:

The recorded location for this site lies above the level of the conservation pool, but within the limits of the maximum flood pool where it would be subject to seasonal flooding. Such flooding probably buried this site.

Recommendation:

Until this site can be relocated, no further recommendations are feasible. Whenever the general locale's condition should change through denudation or erosion, additional attempts should be made to relocate this site. Sparse present knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR207

Description:

Originally surveyed in 1956 by Johnson, this site was located on a slight rise on the northeast side of the Verdigris River. Site dimensions were given as approximately 200 by 150 feet.

Surface Collection:

One body sherd, one stone fragment, an unidentified animal tooth, and one mussel shell.

Interpretation:

The scarcity of materials collected inhibited assignment of either type or cultural affiliation for this site by Johnson or Howard.

Condition:

In recent years, the recorded site location area has lain fallow allowing the growth of very dense brush and tall native grasses. Shovel tests failed to relocate this site, but did reveal very deep deposits of banded sediments that may have buried the site.

Recommendation:

Until this site can be relocated no further recommendations are feasible. Whenever the general locale's condition should change through denudation or erosion, additional attempts should be made to relocate this site. Sparse present knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR208

Description:

Surveyed in 1956 by Johnson, who described this site as lying approximately 400 feet east of the Verdigris River on a slight rise. The area of occupation could not be determined because of the scarcity of cultural materials.

Surface Collection:

Only two chert flakes were recovered during this survey.

Interpretation:

Because of the scarcity of cultural materials no interpretations have been offered.

Condition:

In recent years, the recorded site location has lain fallow allowing the growth of thick brush and tall native grasses. Shovel

tests failed to relocate this site, but did reveal very banded flood sediments that may have buried the site.

Project Impact:

The recorded location for this site lies above the level of the conservation pool, but within the limits of the maximum flood pool where it would be subject to seasonal flooding. Such flooding probably buried this site.

Recommendation:

Until this site can be relocated no further recommendations are feasible. Whenever the general locale's condition should change through denudation or erosion, additional attempts should be made to relocate this site. Very sparse present knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR209

Description:

Surveyed by Johnson in 1956, who described this site as located on a slight rise on the east side of the Verdigris River. Site dimensions were estimated at 700 by 300 feet.

Surface Collection:

No surface collection was made because the site had been obliterated by a construction detour for U. S. Highway 54.

Testing:

No formal testing was conducted, but the site area apparently served as a borrow pit for the construction of U. S. 54. Machinery excavations in this borrow pit uncovered a stone-lined hearth containing ten fire-reddened stones, charcoal, and bone fragments.

Interpretation:

Howard defined this site in 1964 as a possible village.

Condition:

The site has been completely destroyed by earth moving activities connected with the reconstruction of highway U. S. 54.

Project Impact:

The site has already been destroyed.

Recommendation:

None.

14GR210 - THE MOORE SITE

Description:

The site is located in a cultivated field and is bordered on the east by Walnut Creek. A tree line interrupts the site to the south where an access road enters the field. The northern and western boundaries were determined by the extent of lithic scatter. A faint erosional gully runs across the southwest portion of the site. It measures 150 x 95 meters and lies in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The lithic scatter was quite extensive, although three patches showed higher concentrations of material than elsewhere. One patch occupied the extreme southeast corner of the site, another occurred on the north central section, and the third patch was on the northwest part of the site. Although all three patches of high concentration produced about the same overall quantity of material, the majority of the tools were found in the north central section (Table III). The tools include one large side-notched point plus parts of twelve others. Two were point tips, one a midsection and the rest bases. The nine bases show a wide variety in style from corner-notched to side-notched to only one side being notched (Fig. 7). All appear to have been long and large point types, but none is complete enough to assign to named types. There are five fragmentary drills, one base and the rest either tips or midsections. One interesting fragment appears to be a broken drill that has been reworked on one side into a graving tool. Of the two preforms found, one is quite crudely shaped because of numerous inclusions in the chert while the other appears to be in the final stages of manufacture, but heavy cortex at the distal end probably made further shaping difficult. One hafted scraper was found, made from a large reworked point. Other scrapers include one large flake scraper with a heavy cortical layer on its convex face, five other flake scrapers, and one discoidal scraper. The eight bifaces include four extremely nondescript specimens and four fragmentary possible midsections of large points or knives. The one full-grooved axe head (Fig. 8) appears to be made from a basalt or siltstone. It is heavily patinated and represents the only piece of this material found in the project area. There were also eleven utilized flakes and forty unmodified flakes.

TABLE III. SURFACE COLLECTION FROM SITE 14GR210

Points	13
Large, side-notched	1
Bases	9
Tips	2
Midsections	1
Drill fragments	5
Preforms	2
Scrapers	8
Hafted	1
Flake	6
Discoidal	1
Bifaces	8
Full-grooved axe head	1
Utilized flakes	11
Unmodified flakes	40



FIGURE 7. 14GR210 - POINT BASES



FIGURE 8. 14GR210 - GROOVED AXE HEAD

Testing:

Small shovel tests were dug into each of the three patches exhibiting the highest concentrations of surface material. These small pits were excavated to approximately 25 cm. below ground surface, but no cultural materials were encountered, nor was any stratigraphy observed.

Interpretation:

In 1957 Howard tested this site, but also recovered very little cultural material. He did interpret the site as a major camp of the Archaic stage. The artifacts we collected and the lack of pottery substantiate this interpretation.

Condition:

When first located during this survey, 14GR210 was planted in milo. The present appearance of the site reflects continuous erosion of the deposits by rain, flooding, and agriculture. Although little cultural material was found in the gully crossing the site, a large quantity appeared in small erosional tunnels in the north central zone of concentration.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

Because the erosional damage has concentrated in the north central part of the site, we recommend this zone be tested intensively or even excavated in order to salvage the material and information that may still be there. When backfilled, this portion would provide a buffer against further erosion to the remainder of the site which can then be preserved. Since good Archaic sites are rare throughout Kansas and 14GR210 appears to possess reasonably good integrity, such a reinvestigation should provide the necessary data to nominate it for inclusion on the National Register of Historic Places.

14GR211

Description:

Originally surveyed by Johnson in 1956, this site was described as located on a slight rise on the east side of the Verdigris River

and bordered on the southeast by a small tributary stream that flows into the Verdigris from the northeast. Because of a heavy cover of weeds, the site's size could not be determined.

Surface Collection:

Materials collected consisted of one point fragment, one scraper, and one utilized flake.

Interpretation:

The site was interpreted as a minor campsite.

Condition:

Today (1980) this area is heavily overgrown with oak and hickory forest. Shovel testing failed to relocate this site.

Project Impact:

The recorded site location area lies above the level of the conservation pool, but within the limits of the maximum flood pool. The locale frequently floods and appears to be eroding regularly from the east.

Recommendation:

Until this site is relocated no further recommendations are feasible. The site locality should be monitored for any changes in condition such as denudation or erosion that might permit the site to be relocated. Present very sparse knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR212

Description:

Originally surveyed in 1956 by Johnson, who described this site as lying on a slight rise on the north side of Walnut Creek. The area of occupation was measured as 1500 by 500 feet.

Surface Collection:

The 1956 collection contained a number of pottery sherds, projectile points, knives, scrapers, flakes, and mussel shell. Unfortunately, neither Johnson (1957) nor Howard (1964) provides fuller descriptions of these materials.

Interpretation:

Johnson defined the site as probably a village associated with Kansas City Hopewell. (We suspect this more likely would fit into the Cuesta Phase Woodland.)

Condition:

Today the location of 14GR212 has been allowed to go fallow principally because the area is now frequently inundated. On the survey team's first visit to the site locality, it was completely under water. During a second attempt the locality was swampy and covered with dense debris from flooding, preventing relocation of this site.

Project Impact:

The recorded site location lies at the very edge of the conservation pool where it floods regularly.

Recommendation:

Until this site can be relocated, no further recommendations are feasible. Our present sparse knowledge of the site and our inability to reach it preclude its eligibility for inclusion on the National Register of Historic Places.

14GR213

Description:

Surveyed in 1956 by Johnson, who described this site as located on a slight rise on the northeast side of Walnut Creek. The area of occupation was estimated at 400 by 250 feet.

Surface Collection:

Cultural materials consisted of one point and one point fragment, one large knife and one knife fragment, and chert flakes.

Interpretation:

The site was interpreted by Howard (1964) as a minor campsite.

Condition:

The reported site locale is now fallow and covered by very dense grasses. Shovel testing could not relocate the site.

Project Impact:

The recorded site location area lies above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

Until this site is relocated, no further recommendations are feasible. The site locality should be monitored for any changes in condition such as denudation or erosion that might permit relocation of the site. Present sparse knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR214

Description:

Originally described in 1956 by Johnson, the site was located on the northeast side of Walnut Creek on a slight rise separated by an erosional zone from 14GR213. Site size was estimated at approximately 500 by 250 feet.

Surface Collection:

One projectile point, one knife fragment, one scraper, two pieces of "worked stone," and three chert flakes were recovered during the survey.

Interpretation:

The small surface collection made Howard (1964) unwilling to define either a cultural affiliation or site type.

Condition:

The recorded site location area is presently covered with dense brush and tall native grasses. Shovel testing failed to relocate the site.

Project Impact:

The recorded site location area lies at the edge of the conservation pool where it is susceptible to channel erosion, and within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

Until this site is relocated, no further recommendations are feasible. The site locality should be monitored for any changes in condition such as denudation or erosion that might permit relocation of this site. Present sparse knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14GR215

Description:

Surveyed originally in 1956 by Johnson, who described this site as located on a slight rise on the southeast side of the Verdigris River. The area of occupation was estimated at 700 by 300 feet.

Surface Collection:

Materials collected comprised one knife and two knife fragments, one scraper, three utilized flakes, a possible core, and one mussel shell fragment.

Interpretation:

No interpretation was given for this site by either Johnson or Howard (1964).

Condition:

The recorded site location area is almost constantly flooded or, under driest conditions, very marshy. This wetness obscured the ground surface and rendered testing impossible, so the site could not be relocated. The absence of eroding cultural materials often visible along shorelines where wave action is damaging sites suggests this site has been buried by alluvium.

Project Impact:

The recorded site location lies within the edge of the conservation pool where it is almost constantly under water.

Recommendation:

None. Should the level of Toronto Reservoir ever be drawn down, attempts to relocate this site might be made. Present sparse knowledge and its unknown location preclude this site's eligibility for inclusion on the National Register of Historic Places.

14GR216 - CARTER SITE

Description:

The site is located in an open field about fifteen meters from the banks of the Verdigris River. The land is very flat and no topographic features were observable. Highway U. S. 54 passes some ninety meters to the south. The site was marked by lithic scatter only which measures 50 x 10 meters, and is in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The lithic scatter from this site was very meager and widely dispersed. Only eight flakes were recovered.

Testing:

No testing was conducted.

Interpretation:

In 1957 Howard excavated a 65-foot-long trench through this site. At that time he recorded a site area some five times larger than the one we saw. He defined three occupational components--an Aksarben (Central Plains Tradition), Keith Focus (Late Woodland), and an Archaic component--each having inhabited a village or camp on this spot. The sparse materials we collected could reflect unfavorable survey conditions (during January) or a drastic change in the site's integrity.

Condition:

The ground surface shows little evidence of erosion, but intensive cultivation may have inhibited the recovery of cultural materials during resurvey. Collecting by amateurs may also have stripped the ground surface of informative artifacts. In general, the site appears quite stable.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

Since this site has been extensively tested by Howard in 1957, providing considerable information about it, and since it is not now seriously threatened, we recommend only periodic revisits to monitor any changes in its condition that might warrant further salvage. Any

site that promises three occupations of different ages possesses a very high information potential. Before this site can be nominated for inclusion on the National Register of Historic Places, the existing collections and field notes at the Smithsonian Institution and the Midwest Archeological Center in Lincoln, Nebraska, need to be restudied in the light of current knowledge to properly assess its significance.

14GR217

Description:

Described by Johnson in 1956, the site was located on the south side of the Verdigris River on a slight rise. The area of occupation was estimated at approximately 300 by 200 feet.

Surface Collection:

One rim sherd, four modified flakes, and a single piece of worked mussel shell were collected.

Interpretation:

The site was defined as a small ceramic campsite associated with Keith Focus.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool.

Recommendation:

None. Our sparse knowledge of this site and its present inundated condition would not warrant inclusion on the National Register of Historic Places.

14GR218

Description:

Surveyed originally in 1956 by Johnson, who described it as located on the northwest side of the Verdigris River on a slight rise. Dimensions of 500 by 300 feet were estimated for the site.

Surface Collection:

Cultural material consisted of two flakes, one stone core, and ten samples of fieldstone.

Interpretation:

The absence of diagnostic materials precluded interpretations.

Condition:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our very sparse knowledge of this site and its present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14GR221

Description:

Surveyed in 1957 by Howard, who described this site as located on three small knolls on the north side of Highway U. S. 54, between it and Homer Creek. (Homer Creek has ceased to flow regularly because of extensive silting at its confluence with the Verdigris River.) The area of occupation was estimated to cover between two and three acres.

Surface Collection:

A large collection was recovered from 14GR221 including three rim sherds, forty-three (43) body sherds, eight points and point fragments, three drills, seventeen (17) knives and knife fragments, fifty-one (51) scrapers, one core scraper, one core, one chopper, and one mano.

Interpretation:

Howard (1964) assigned this site to a Woodland cultural affiliation, but did not describe the type of site it might be. The richness of its surface collection and its size would certainly indicate a significant habitation or village location.

Condition:

During the 1979 survey the ground surface at the recorded site location could not be observed through extremely dense fallow vegetation. Extensive shovel testing failed to relocate this site.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding. Highway U. S. 54 also interrupts drainage southward from Homer Creek causing generally wet conditions over much of the year.

Recommendation:

This site locale should be monitored by repeated visits at different seasons and under different conditions to watch for changes in condition that might permit exact relocation. Since Woodland sites in Kansas rarely produce such rich collections, this site appears to possess the potential for yielding significant information. It needs to be relocated and investigated further to determine its eligibility for inclusion on the National Register of Historic Places.

14GR502

Description:

The site is located on a gently rising mound less than ten meters from the banks of Walnut Creek to the northeast. A runoff or wash marks the northern boundary of this site, and an access road defines the southern boundary. The site measures 45 x 30 meters, and is located in the Verdigris soil member of the Verdigris-Osage Soil Association.

Surface Collection:

Surface material was widely scattered and extremely sparse. It comprised one worked core, a possible knife fragment, one bifacially flaked end scraper, one flake scraper, and four flakes. Some widely scattered pieces of sandstone were found and in two instances there appears to be some fire-reddening.

Testing:

Because of the sparse nature of the material collected and wide dispersion across the site, no subsurface testing was conducted.

Interpretation:

None of the material collected is diagnostic enough to pinpoint cultural affiliation. Because of the sparsity of material, this site was probably occupied for only a short period of time and may represent a hunting camp or special activity locus.

Condition:

This site is presently in a cultivated field planted in milo at the time of survey. This agricultural activity has caused some damage.

Project Impact:

The site is situated on the bank of Walnut Creek just above the level of the conservation pool, but within the limit of the maximum flood pool where it is subject to seasonal flooding. Although no cultural material was observed in the cutbank of Walnut Creek, there is considerable erosion along this bank that may have some future adverse effect. At present the greatest danger to the site's preservation would appear to be the regular cultivation of the field and erosional runoff on the northern periphery of the site.

Recommendation:

Despite the potential for future adverse impact, the site appears to be relatively stable. It should be periodically revisited to monitor its condition and enhance its surface collection. The site does not seem to meet the necessary eligibility criteria for inclusion on the National Register of Historic Places.

14GR503

Description:

This site is located on a sharply rising mound dissected on the northeast and southwest by extensive runoff channels. It is approximately 300 meters from the banks of Walnut Creek. Fifty meters to the east is an isolated arm or extension of Walnut Creek into which the northeast drainage flows. The site measures 45 x 25 meters in size and, because of its lighter soil coloration, may rest in the Osage member of the Verdigris-Osage Soil Association.

Surface Collection:

Almost the entire collection was made along the sloping sides of the mound in the bordering runoffs. With the exception of one broken biface and five utilized flakes, the entire collection consisted of waste flakes some of which may not be attributable to human activity.

Testing:

No subsurface testing was conducted.

Interpretation:

The lack of culturally significant materials prevents any determination of cultural affiliation. Since all materials were found on the sloping sides of the mound adjacent to the runoff areas, they could be originating from a buried cultural deposit. Because only a biface and thin flakes were found, this site served possibly as either a very short-lived camping site or a tool-working station. The scarcity of material and the lack of any tools from the collection could reflect one of two possibilities: 1) This site may have been very shallow and intensive agriculture has destroyed most of it. 2) A buried component may exist that continued erosion will eventually bring to light.

Condition:

This site is presently in a cultivated field planted in milo at the time of this survey. Some damage has undoubtedly resulted from yearly cultivation and possibly from erosion along its slopes.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

We recommend periodic revisits to the site to monitor any changes from farming and erosion and to add to its surface collection. The site does not seem to meet the necessary eligibility criteria for inclusion on the National Register of Historic Places.

14GR504

Description:

Site is located 250 meters south of Walnut Creek bordered on the north and east by trees, while the south and west periphery are marked by an access road. The surface is crisscrossed by numerous erosional runoffs, and little topographic change can be discerned. This site measures 30 x 40 meters and is located in the Osage soil member of the Verdigris-Osage Soil Association.

Surface Collection:

Only two pieces of worked chert were found. One was a simple flake, thin in cross section, while the other is either the tip of a large projectile point or possibly a knife. Both pieces were found in erosional cuts at the northern end of site.

Testing:

Because of the numerous erosional cuts and the lack of a defined area of material concentration, no subsurface testing was conducted.

Interpretation:

No determination as to the nature or use of this site can be made. The presence of a site is based primarily on the point tip and a slight topographic change at the north end of the field. It is impossible to define the cultural affiliation or use of this site because of the meager surface collection. At most, it might represent a small temporary camp or activity area. Because the materials collected were found only in erosional gullies, they could have been transported to their present location from some different point of origin.

Condition:

The site is presently in a cultivated field planted in milo at the time of survey. Intensive cultivation of this land may have destroyed the site or at least severely damaged it.

Project Impact:

The site is situated above the level of the conservation pool, but within the range of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

Because of the sparse evidence for this site, we recommend periodic revisits to verify its location and enhance the surface collection from it. The site does not seem to meet eligibility criteria for inclusion on the National Register of Historic Places.

14GR505

Description:

The site is located on the floodplain of Walnut Creek. Intensive agriculture has obliterated all distinguishing topographic features except the southern border which is marked by a broad

drainage area running east and west through the field. The site measures 25 x 75 meters, but the lack of topographic delineation makes this a rough estimate. Verdigris soils of the Verdigris-Osage Soil Association characterize the site.

Surface Collection:

Lithic scatter was quite extensive. Although dominated by flakes, 2 side scrapers, 2 end scrapers, 1 worked core, and 7 retouched flakes were recovered. Large quantities of fire-reddened sandstone were also found, but cultivation had disrupted any distinctive clustering. Because of the abundance of material from this site, several revisits were conducted.

Testing:

Two small shovel tests were dug at the southern periphery of the site to determine depth, but neither provided a distinct stratigraphy, nor was any material recovered.

Interpretation:

Despite collection of a large amount of cultural material, only lithic tools and debris were observed and most tools were broken. No pottery or points appeared. The styles, quality of workmanship, and kinds of material are consistent with collections from such Woodland sites as 14GR508, 14GR517, and 14W0503 in the survey area, and therefore the occupation at 14GR505 can be tentatively identified as Woodland.

Condition:

Intensive cultivation may have damaged the major portion of this site. Shovel testing, conducted in a high concentration of surface debris, failed to reveal any subsurface cultural deposit.

Project Impact:

The site is situated on the bank of Walnut Creek just above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

We suggest this site be revisited at periodic intervals to monitor any changes in the condition or description of the site and to increase the surface collection from it. A program of limited testing to ascertain the depth of cultural deposit, full horizontal extent, and research potential should be undertaken to obtain the necessary information for nominating this site for inclusion on the National Register of Historic Places.

14GR506

Description:

The site is located just south and across a small gully from 14GR505, and it is situated on a terrace remnant bordered on the east and south by Walnut Creek, and on the north and west by a broad floodplain zone. The site forms a very distinct topographic feature easily distinguished from 14GR505. The site measures 40 x 15 meters and is located on the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Lithic scatter occurred almost exclusively on the down-sloping edges of the terrace remnant and into the floodplain zone bordering the north and western ends of the site. The collection consisted entirely of lithic materials and was dominated by relatively large flakes, a few of which were utilized or retouched. The collection did include one large biface fragment, one midsection of a biface (possibly a point), 3 flake scrapers, and 7 utilized flakes.

Testing:

No subsurface testing was conducted.

Interpretation:

The absence of pottery and diagnostic lithic artifacts prevents any firm determination of cultural affiliation. The bifaces, flake scrapers, and large flakes are consistent with nearby Plains Woodland assemblages, and inconsistent with both earlier and later complexes in the Toronto region. Since the materials were recovered over a fairly extensive area of the terrace, a small habitation or at least a camp that may have been used for a fairly long period probably existed here.

Condition:

When first located, the site lay in a fallow field although it had been planted in the past. During a revisit in March, 1980, the site had been freshly plowed and only three flakes were visible.

Project Impact:

The site is situated on the bank of Walnut Creek just above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to monitor any changes in condition and to increase the surface collection from it. Present knowledge of the site does not meet eligibility criteria for inclusion on the National Register of Historic Places.

14GR507

Description:

The site is located in a fallow field due south from 14GR506; no distinct topographic features mark its boundaries with the exception of an arm of Walnut Creek directly to the north. The site measures 25 x 20 meters, and is in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The surface collection consisted of only four chert flakes, none of which exhibited any utilization or retouching.

Testing:

No testing was conducted.

Interpretation:

The very sparse lithic scatter suggests only a temporary campsite or specialized work area associated with a nearby habitation such as 14GR506 or 14GR508. Its cultural affiliation is unknown.

Condition:

Presently this site is in a fallow field obviously being used for pasture. Little if any erosion is occurring, and the cultural deposit appears to be stable.

Project Impact:

The site lies above the level of the Toronto Lake conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

The site should be revisited periodically under differing field conditions in order to obtain a larger and more informative surface collection. Present knowledge is too sparse to suggest possible eligibility for inclusion on the National Register of Historic Places.

Description:

The site is located on the second terrace of Walnut Creek along its south bank (Fig. 9). There are no other distinguishing topographic features to help mark the site boundaries. The extent of lithic scatter measures approximately 400 x 200 meters. The densest lithic scatter occurred along the creek-facing terrace slope. A lesser concentration extended across the relatively level terrace top, and formed no distinguishable clustering. This site lies in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

This site was surveyed and visited on five separate occasions because of the large quantities of cultural materials appearing along the eroding north terrace slope. Each revisit added a considerable quantity of artifacts to the total site collection. The assemblage (Table IV) from this site consists of 15 projectile points (Figs. 10. 11), 23 pottery sherds (Fig. 12), 1 complete and 1 broken celt (Fig. 13c and 13a), 12 bifaces (some are parts of either large points or knives) (Fig. 14a and b), 3 plano-convex scrapers (Fig. 14d, e), 1 flake blade (Fig. 14c), 7 flake scrapers, 1 drill fragment, 1 utilized flake worked into a spoke shave, and some 155 unmodified flakes. The ground surface was heavily littered with waste flakes and only a sample was collected. A sizeable quantity of bone was also found although the bulk of it was in a very poor state of preservation. Several possibly identifiable portions of long bones were collected.

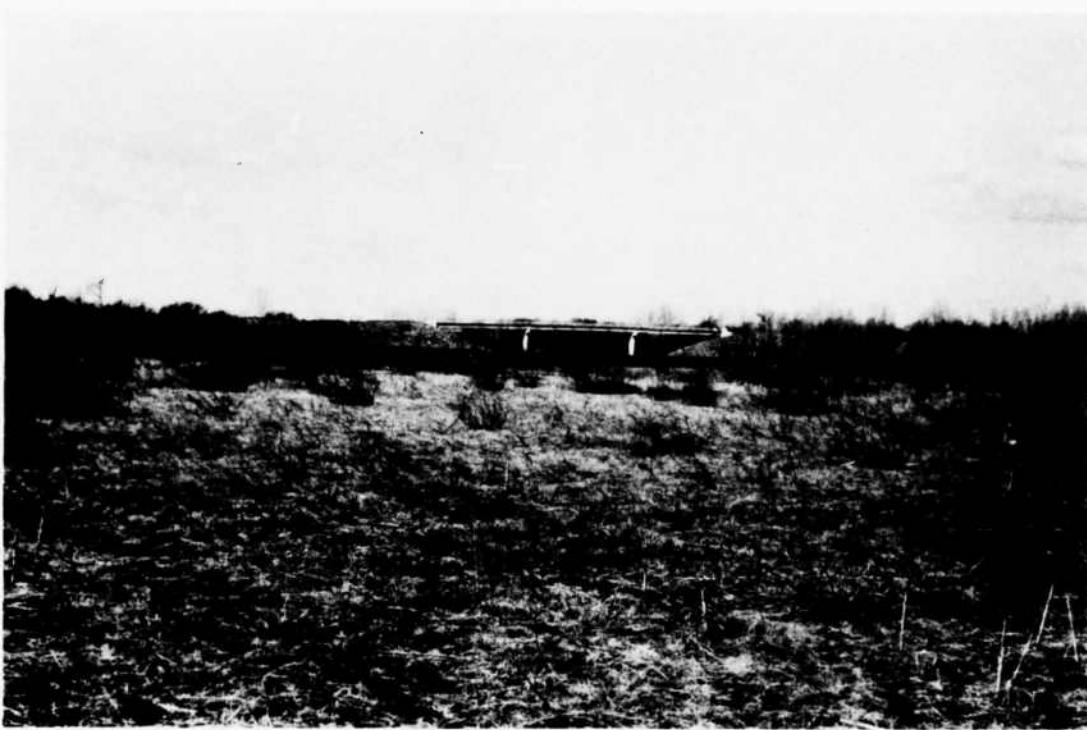
Testing:

A series of seven shovel tests were dug along the top of the terrace where the majority of the cultural material was found. Although these tests reached approximately 30 - 40 cm. below ground surface, no cultural material appeared. The soil to this depth exhibited a rather yellowish color, possibly suggesting a Mason soil.

Interpretation:

The size of scatter and quantity of cultural debris from this site indicate it must have been a relatively extensive village, representing one and probably two separate occupational components. A Woodland component would account for the Gary, contracting-stem and corner-notched points, the bifaces, the flake blade, the celts, and the grog- and grit-tempered pottery. A Pomona component is indicated by the Harrell point, the end scrapers, and the Pomona pottery. Several additional artifact categories could represent both components.

In eastern Kansas, Woodland and Plains Woodland complexes commonly occur on the same sites as Pomona remains, presumably at a stratigraphically earlier level. Since very few such sites have



a. 14GR508 - SOUTH VIEW



b. 14GR508 - NORTHEAST

FIGURE 9. 14GR508 - TWO VIEWS

TABLE IV. SURFACE COLLECTION FROM SITE 14GR508

Points	15
Gary	1
Langtry	2
Contracting stemmed	1
Expanding stemmed	4
Corner-notched	2
Harrell	1
Tips	2
Midsections	2
Bifaces	12
Scrapers	10
End	2
Side	1
Flake	7
Flake blade	1
Utilized flake spokeshave	1
Celts	2
Unmodified flakes	155
Pottery sherds	23
Grog-tempered, cord-roughened rim	1
Grit-tempered, cord-roughened	1
Pomona ware	21

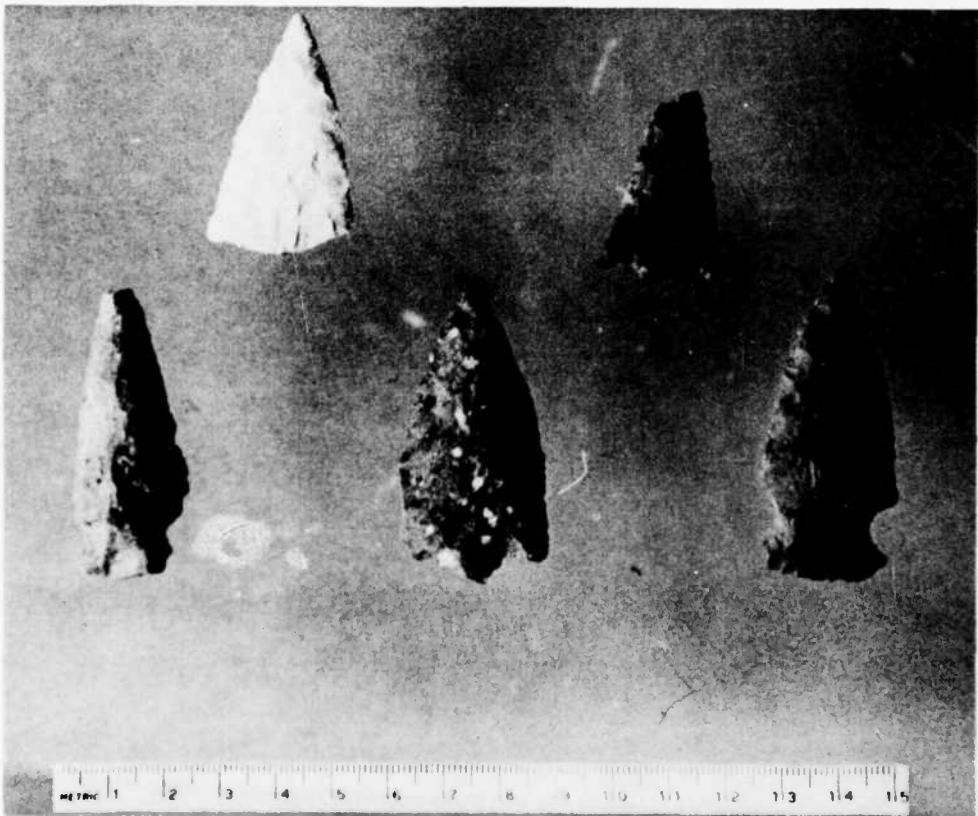


FIGURE 10. 14CR508 - PROJECTILE POINTS

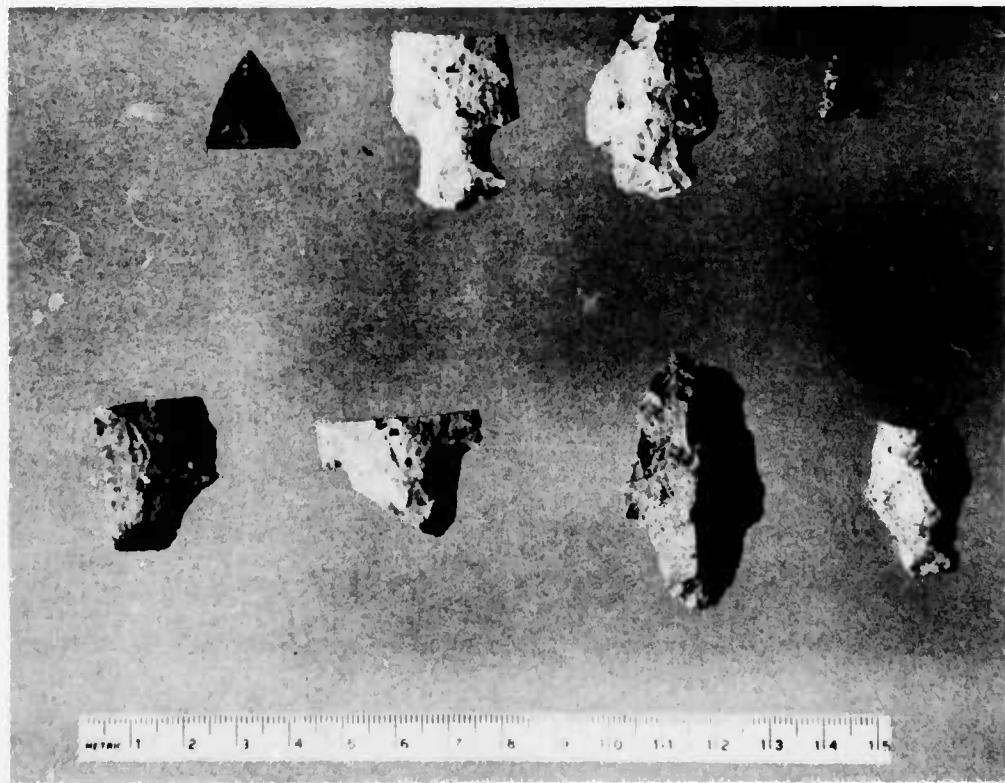


FIGURE 11. 14GR508 - PROJECTILE POINTS



FIGURE 12. 14GR508 - POMONA WARE POTTERY SHERDS

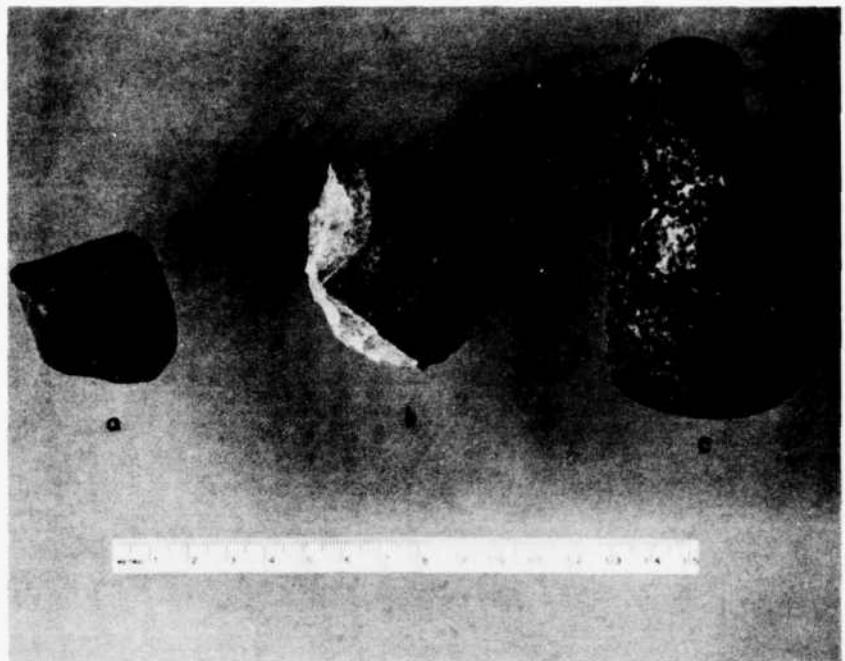


FIGURE 13. 14GR508 - STONE CELTS

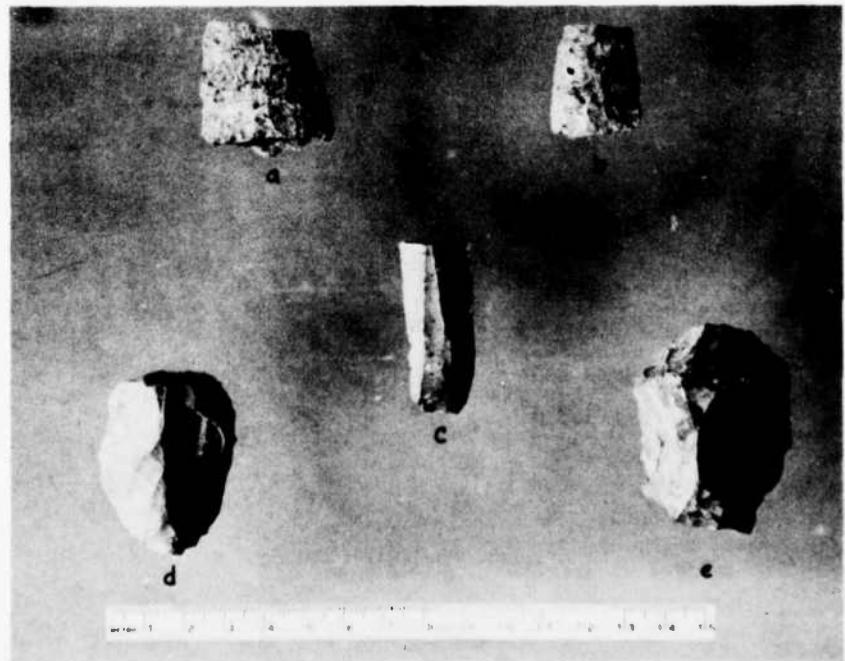


FIGURE 14 14GR508 - CHIPPED STONE TOOLS

been excavated, this site holds the potential of supporting or refuting the hypothesis of a Plains Woodland/Woodland origin for the Pomona cultural pattern.

Condition:

At one time this field was apparently cultivated, but recently the land has been allowed to go fallow and presently serves as pasture. Aerial photographs from previous years reveal this site is periodically under water. In several parts of the site, the orange-colored subsoil appears at the surface, indicating heavy erosion of the normal dark gray topsoils.

Project Impact:

This site occupies a low terrace along the south bank of Walnut Creek above the level of the conservation pool for Toronto Lake, but within the limits of the maximum flood pool where it is subject to regular seasonal flooding. Along the terrace slope facing Walnut Creek, wave action and floodwater runoff have eroded extensive sections of the cultural deposit. In fact, the extremely dense vegetation would have totally obscured this site were it not for the continuous erosional activity and deeply rutted vehicle track, both of which exposed cultural materials. The constant wave action against the terrace, the regular seasonal floods washing away the topsoil, and people using this site location for recreation, are slowly and steadily destroying this site.

Recommendation:

Because of the steady ongoing destruction of this site, a plan for investigating it should be developed. The site should be tested intensively to determine its depth, to identify the prospect for finding preserved features, and to outline any stratigraphy that might exist. The site's size, richness of cultural materials, the potential to enhance existing knowledge about the Woodland occupations in southeastern Kansas, and the potential to clarify the relationships between Woodland and Pomona cultural complexes suggest an appropriate testing program would support this site's eligibility for inclusion on the National Register of Historic Places. The testing program would add data to such a determination and ascertain whether additional excavations should be undertaken to mitigate adverse erosional impact.

14GR509

Description:

The site is located on the second terrace above Walnut Creek and parallels the creek channel. The site is bounded on the east

and west by tree lines and on its northern periphery by the limit of lithic scatter. It measures about 250 x 10+ meters in overall size and is in the Verdigris member of the Verdigris-Osage Soil Association. The site area is undoubtedly much wider than 10 meters, but dense surface vegetation obscured the ground surface above the terrace edge toward the northeast.

Surface Collection:

The surface collection consists of two large point bases (Fig. 15d, e), one knife blade midsection (Fig. 15c), three biface fragments, one worked core, five retouched flakes, nine pieces of bone (probably from deer) (Fig. 15a), one decorated piece of pottery (Fig. 15b), and some 200 waste chert flakes.

Testing:

Since the site was easily definable along the crest of the terrace, no testing was conducted.

Interpretation:

The one piece of pottery exhibits several Middle Woodland characteristics--thickness, grit-tempering, a cord-marked exterior surface with roulette stamping over the cord impressions. These characteristics suggest a Cuesta Phase Woodland cultural affiliation. The overall extent of the site and the dense surface scatter would suggest a possible village or, at the very least, a frequently occupied habitation.

Condition:

Presently (Fall 1979) the field where 14GR509 lies is planted in milo. Little erosion seems to be occurring here compared to many other sites although there is some on the southeastern part of the terrace. Dense weeds obscured most of the site above the terrace edge.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

This site should be periodically revisited to enhance the surface collection from it and to outline its full extent from the terrace edge. Beyond that, it should be preserved for future investigation as a good example of Cuesta Phase Woodland. Its size, information potential, and apparently good state of preservation suggest an appropriate testing program would support this site's eligibility for inclusion on the National Register of Historic Places.

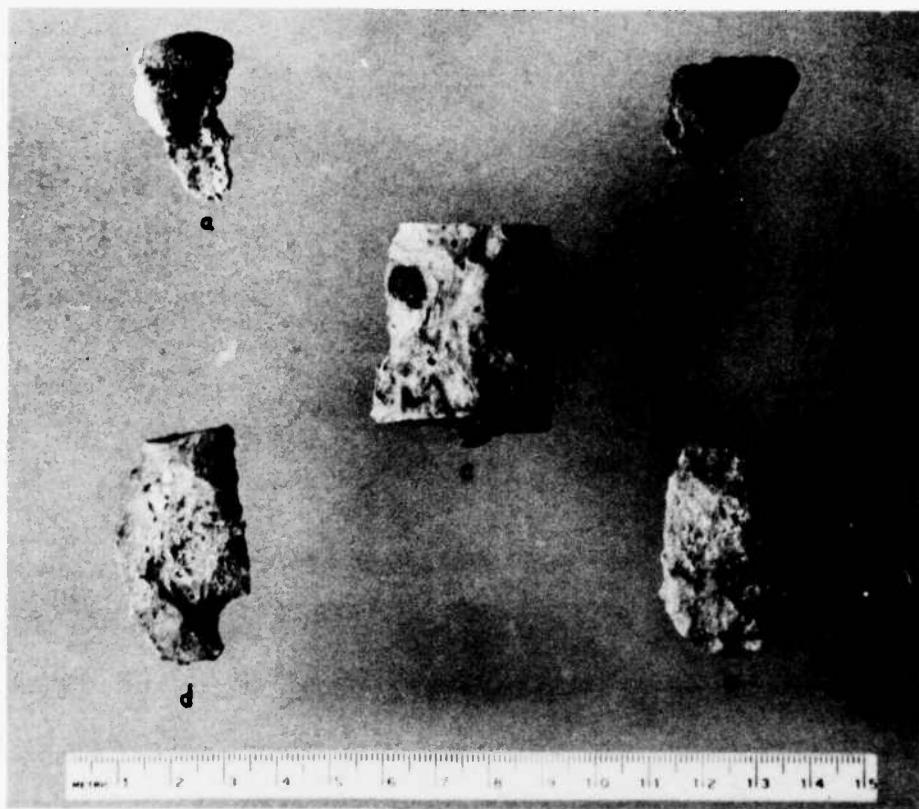


FIGURE 15. 14GR509 - SURFACE ARTIFACTS

Description:

The site is located on the first terrace of Walnut Creek which borders it on the west, while an old meander borders it along the north. This site follows the terrace crest for about thirty meters where the lithic scatter finally ends. The site measures 35 x 25 meters and is in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The surface collection was widely dispersed over the entire area and was limited to lithic materials: three point bases (Fig. 16c, d) (one large side-notched specimen and two with wide shoulders and contracting stems very like Gary points) (Bell 1958: 28), two large biface fragments (Fig. 16e), one scraper, two biface midsections, four utilized flakes, and 20 waste flakes.

Testing:

No subsurface testing was conducted.

Interpretation:

The paucity of artifacts and the absence of any material other than lithics suggest a periodic campsite. The two Gary-like point bases and the absence of pottery could argue for either a late Archaic or possibly a Woodland cultural affiliation.

Conditions:

Presently (Fall 1979) planted in wheat and farmed on a regular basis. Aside from cultivation activity, erosion seems to be causing little damage.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to enhance its surface collection and monitor any changes in its condition. It should be preserved as well from future damage from farming, recreational use, and construction. While the site might not yet qualify for inclusion on the National Register of Historic Places, its information potential would merit inclusion in the Register of Historic Kansas Places.

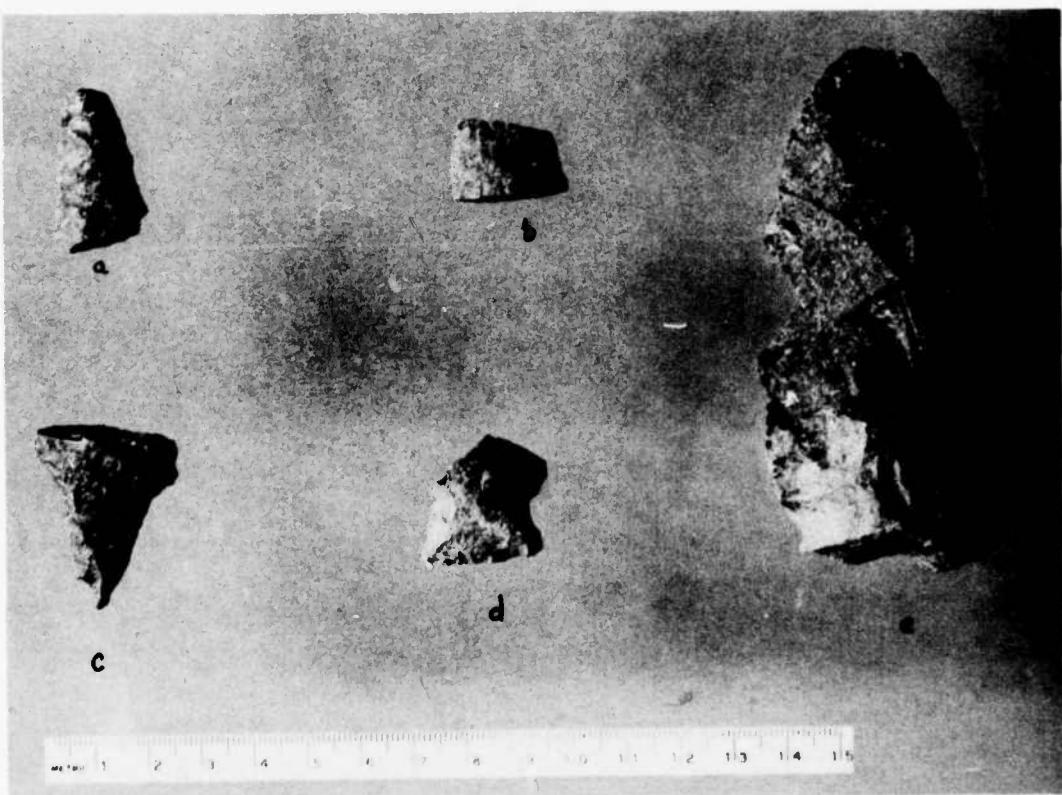


FIGURE 16. 14GR510 - SURFACE ARTIFACTS

14GR511

Description:

The site is located in an open field some 25 meters from the banks of Walnut Creek. This site is not distinguished by any distinct topographic features, although the southwestern edge stops at the crest of the second terrace. A line of trees crosses the center of the site without interrupting the lithic scatter. The site measures 35 x 55 meters, and is located in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The lithic scatter was widely dispersed and limited entirely to chert flakes none of which exhibited either utilization or retouching.

Testing:

No subsurface testing was conducted.

Interpretation:

Since we could recover no diagnostic material from this site, no cultural affiliation could be assessed. It may have served as a work or camp site.

Condition:

At the time of survey (Fall 1979) this field was planted in wheat. Little erosion seems to be taking place although agricultural practices might have dispersed the surface lithic material and may have destroyed a shallow site.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

The site should be revisited periodically to enhance the surface collection and determine a cultural affiliation. Current sparse knowledge and the small size preclude its eligibility for inclusion on the National Register of Historic Places.

14GR512

Description:

The site lies on the second terrace above the Verdigris River. It follows the terrace crest from north to south and forms a rough mound in appearance. The western periphery was determined by the extent of cultural material. The site measures 30 x 25 meters, and is located in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The cultural material was widely scattered and mostly limited to lithic and ceramic materials. One worked core was recovered and four chert flakes. Pottery belonged to historic styles including large stoneware crockery and white china. One piece of white china displayed an embossed flower. Shell and two pieces of fire-reddened sandstone were also collected.

Testing:

No subsurface testing was conducted.

Interpretation:

The lack of diagnostic materials prevents determination of cultural affiliation for this apparent temporary camp. The historic material seems somewhat out of place, and might have resulted from trash dumping. An old silo around which large amounts of historic pottery were found stands about 150 meters from the site.

Condition:

The site lies in a field presently planted in winter wheat. Little erosion seems to be affecting this site, although intensive agriculture could be damaging it severely.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to enhance its surface collection and monitor its condition during farming. Our present sparse knowledge and the site's small size do not meet eligibility criteria for inclusion on the National Register of Historic Places.

14GR513

Description:

The site is located on a low mound in a heavily wooded area on a small peninsula that is bordered on the north and east by the Verdigris River and on the south and west by a small inlet of Toronto Lake. Apparently when the lake level is higher this area is isolated as an island before becoming flooded. The site measures 25 x 20 meters, and is in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Profuse debris from regular flooding, dense woods, and undergrowth prohibited ground visibility and prevented any surface collection.

Testing:

Since the ground surface was invisible and no surface collection could be made, two shovel test pits were dug. In the first pit, a distinct soil change was noticed at a depth of some 60 cm. below the ground surface. Our inability to determine a clear soil stratigraphy resulted from very wet conditions. In the second pit, a piece of burned bone and one chert flake were recovered at 25 cm. below ground surface. No distinct soil change marked the find, but the soil texture was somewhat sandy.

Interpretation:

The burned bone suggests a probable campsite of unknown cultural affiliation.

Condition:

The site and its immediate surroundings flood regularly leaving vegetational debris on the site, while silting seems to be an ongoing process. The area is very heavily wooded with dense undergrowth.

Project Impact:

The site is situated on the edge of the conservation pool within the limits of the maximum flood pool. A layer of vegetational debris indicates regular flooding and the shovel tests revealed evidence of 25 to 60 cm. of recent alluvial buildup.

Recommendation:

Additional testing should be conducted at this site to determine its size and cultural affiliation and assess its significance. Current knowledge is insufficient to assess criteria regarding eligibility for

for inclusion on the National Register of Historic Places.

14GR514

Description:

The site is located between the second and third terraces of the Verdigris River. No natural topographic features define it from the surrounding landscape which is quite flat. The site measures 25 x 20 meters defined solely on the chert lithic scatter. It lies in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The surface scatter was extremely sparse, comprising one chert core, one utilized flake, and two waste chert flakes. Some fire-reddened sandstone appeared to be spread over a very broad area, possibly indicating a much larger size than delimited by the lithic scatter alone. Large quantities of fresh water shell were also found.

Testing:

No subsurface testing was conducted.

Interpretation:

The sizeable quantities of mussel shell and fire-reddened stones suggest a shellfish gathering, processing, and/or cooking station of unknown cultural affiliation.

Condition:

At the time of survey (Fall 1979) this land was planted in winter wheat. No serious erosion seems to be occurring.

Project Impact:

The site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to enhance the surface collection, attempt to assess its cultural affiliation, and to monitor its condition in the face of farming and flooding. The prospect of this site serving a specialized resource exploitation for some prehistoric human group meets one major eligibility criterion for inclusion on the National Register of Historic Places. Periodic revisits or a limited testing program should clarify this potential.

14GR515

Description:

This site occupies the southwestern portion of a low natural mound running northeast to southwest along the Verdigris River. Site debris could cover the entire mound, but a dense stand of Johnson grass obscured the surface of most of the ground. The visible site measures 35 x 25 meters, and rests on the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Cultural material consisted primarily of lithic material, although one piece of bone was found. Some fire-reddened sandstone and fragmentary fresh water mussel shell were also observed. The lithic collection contained one point base, two utilized flakes, and six waste chert flakes. This material was widely scattered across the site, although most of the waste flakes were concentrated in the northern portion.

Testing:

Two test pits were dug in the Johnson-grass-covered portion of the natural mound to delineate the overall extent of the site. No cultural materials appeared, but the soil texture changed to a very clayey yellowish-orange at a depth of about 15 cm. below ground surface.

Interpretation:

The paucity of material recovered suggests this was a temporary campsite of unknown cultural determination.

Condition:

At the time of survey (Fall 1979) this site was planted in winter wheat. There appears to be considerable rain water runoff from the site area. The northern portion of the mound is overgrown with Johnson grass. The appearance of the yellow-orange subsoil at such shallow depths in the tests suggests erosion may have removed up to half the site's topsoil.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to enhance the surface collection and to monitor its condition for any changes. Limited testing should reveal how badly the site may have been damaged by farming and erosion. Our present sparse knowledge and the apparent damage do not meet eligibility criteria for inclusion on the National Register of Historic Places.

14GR516

Description:

This site is located on a naturally-formed mound about 45 meters west from the banks of Cedar Creek. Just to the west is an old railroad grade running northwest to southeast. The eastern edge of the site follows the second terrace of Cedar Creek. The site measures 50 x 40 meters and is in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

A considerable amount of lithic material covered most of the surface area. The collection consists of two distinctly utilized flakes, 21 relatively large flakes with some cortex present, and 47 waste chert flakes. Despite a concerted effort to collect tools, none were found. The chert flakes form a representative sample of the surfacedebitage.

Testing:

One test pit was dug through plow zone soils to a depth of 20 cm. where a very bright orange-colored soil appeared. This soil was very sandy in nature and contained many small rounded pebbles.

Interpretation:

The overall size of the site and the quantity of lithic debris argues for a lithic workshop of unknown cultural affiliation.

Condition:

The field in which the site is located is presently planted in winter wheat, and it appears to have been under cultivation for a long time. The shallow subsurface occurrence of the gravel-laden orange soil suggests this site has been damaged by plowing and any remaining material will be found in the plow zone or in subsurface pits. Amateur enthusiasts may have collected tools and other potentially diagnostic materials prior to our survey.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

This site should be periodically revisited to enhance its surface collection and monitor its condition for any future changes. Present knowledge suggests it does not yet meet eligibility criteria for inclusion on the National Register of Historic Places.

14GR517

Description:

The site on the first terrace of Walnut Creek occupies a very large mound area. A small gully forms the eastern boundary. The site covers the entire mound measuring 80 x 80 meters and rests on the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Cultural material was scattered over the entire mound although the greatest concentration centered in the north central portion. Lithic material included two complete drills (Fig. 17a, b) and one fragment. One drill was crudely flaked from a small heat-treated pebble of material widespread throughout the Toronto district. The fragmentary drill appears to have been fashioned from a former discoidal scraper. One complete point has a roughly triangular shape with an expanding stem and concave base (Fig. 17c). A second fragmentary point would appear to represent a small version of a Gary (Bell 1958: 28) point. The one piece of pottery recovered had sand-and grog-tempering, a buff-colored exterior surface with cord impressions, and a black interior with a smoothed surface (Fig. 17g). Other lithic items include two bifaces (one possibly the midsection of a point, the second probably part of a scraper), one fairly large unifacially-flaked end scraper (Fig. 17f), and a large number of chert flakes most of which exhibit wear on at least one edge.

Testing:

One small shovel test was dug in the north central portion of the site to a 25 cm. depth, but no cultural materials were recovered and the soil remained a very dark color throughout.

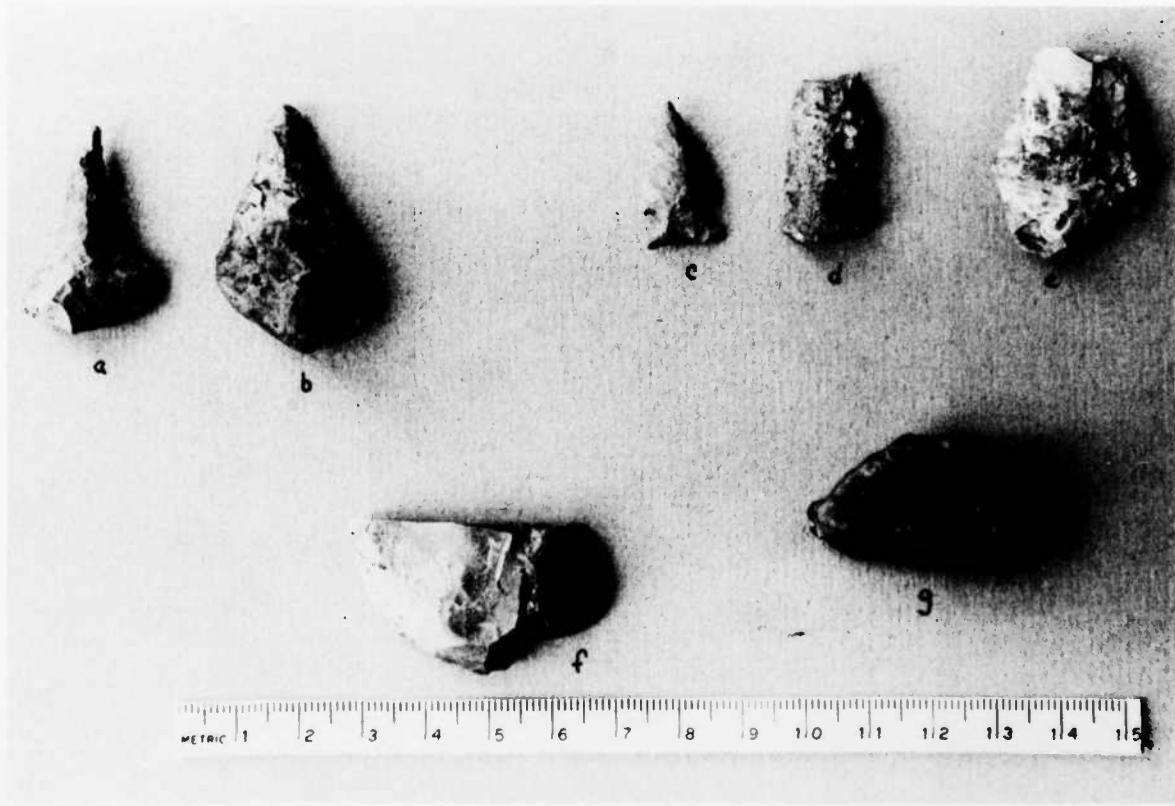


FIGURE 17. 14GR517 - SURFACE ARTIFACTS

Interpretation:

The range of tools and materials supports the former presence of a habitation site with possible structures and features. The high proportion of tools and worn edges indicates many activities of a domestic and economic nature. A Late Woodland occupation is suggested by the single piece of pottery and the contracting-stem points.

Condition:

At the time of survey (Fall 1979) this site was under cultivation in a field of milo. Some erosion is evident along the lower portions of the mound. Despite agricultural activity, the major portion of the site still appears to be buried and undamaged.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

This site should be periodically revisited to enhance its surface collection and to monitor any future changes in its condition. Because it represents an apparently well-preserved habitation site of a poorly known cultural manifestation in Kansas, this site needs further investigation by testing to fully assess its eligibility for inclusion on the National Register of Historic Places.

Archaeological Sites - Woodsen County

14W01

Description:

Surveyed originally in 1953 by Moorman, who described it as located on a rise right on the banks of the Verdigris River. Dimensions were not given.

Surface Collection:

Materials collected consisted of three pottery rim sherds, seventy (70) body sherds, twenty-one (21) points, nine knife fragments, one sandstone abrader, one chopper, and one mano.

Testing:

Three test pits were dug in 1956 by Johnson. Four body sherds, two scrapers, several bone fragments, and chert flakes were recovered.

Interpretation:

Johnson defined the site as a Woodland occupation although Howard (1964) mentioned no cultural affiliation.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. The richness of the surface collection would indicate potential eligibility for inclusion on the National Register of Historic Places, but its present condition precludes its nomination.

14W02

Description:

Originally surveyed by Moorman in 1953, this site was described as situated in an "old" field on the northeast side of an "old" railroad right-of-way. The area of occupation was estimated at approximately one-half acre. Johnson could not relocate the site in 1956.

Surface Collection:

One side scraper, one hammerstone, and several pieces of "flint" were recovered during the original survey.

Interpretation:

Howard's 1964 report did not attempt to define either the function or cultural affiliation of this site.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our sparse knowledge of the site and its present inundated condition make it ineligible for inclusion on the National Register of Historic Places.

14W0201

Description:

Surveyed in 1956 by Johnson, who described this site as lying on a slight rise on the west side of the Verdigris River. This site was also bordered on the north, west, and south by a dry oxbow lake. Dimensions of the occupation area were measured at 705 x 108 feet.

Surface Collection:

One point fragment, one scraper, three flakes, and two sandstone fragments were recovered during the survey.

Interpretation:

Scarcity of materials collected inhibited interpretation of either function or cultural affiliation for this site by Johnson or Howard.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our sparse knowledge of the site and its present inundated condition make it ineligible for inclusion on the National Register of Historic Places.

14W0202

Description:

Originally surveyed in 1956 by Johnson, who described the site as located on the northwest edge of a dry wash entering the Verdigris River from the northeast. Sandstone outcroppings were present in

the bluffs to the northwest of site. The area of occupation measured 515 by 150 feet.

Surface Collection:

Cultural materials consisted of one knife, two scrapers, and six chert flakes.

Interpretation:

Howard's 1964 report did not define either the type or cultural affiliation for this site.

Condition:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. This site's present condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0203

Description:

Originally surveyed in 1956 by Johnson, who described the site as occupying a slight rise on the northwest bank of the Verdigris River with a broad shallow swale marking the southwest limits of the area of concentration. Dimensions of the site were estimated at approximately 900 feet in overall diameter.

Surface Collection:

A substantial number of pottery sherds, plus chipped stone projectile points, scrapers, chert flakes, knives, a paint stone, sandstone, and mussel shell.

Excavations:

In 1957 Howard excavated three 5 x 5 foot test squares at 14W0203. Soils were described as very compact clay loams. Cultural materials were not encountered until depth of approximately twelve inches.

Materials recovered consisted of rim and body sherds, complete projectile points, scrapers, utilized flakes, flake gravers, cores, engraved bone, paint stones, sandstone abraders, animal bone, and mussel shell.

Interpretation:

From the large collection gathered, the site was defined as an extensive village associated with Kansas City Hopewell. (We suspect it would actually fit into the more recently defined Cuesta Phase.)

Condition:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. The richness of both the surface and subsurface collections would indicate potential eligibility for inclusion on the National Register of Historic Places, but its present condition precludes its nomination.

14W0204

Description:

Surveyed originally in 1956 by Johnson, who described this site as a small natural rockshelter with six anthropomorphic petroglyphs on a large sandstone slab that had apparently fallen from the roof of the shelter. The shelter measured 12 feet long by 8 feet high.

Surface Collection:

None.

Interpretation:

No interpretation was offered because of the complete absence of artifacts and other datable materials.

Condition:

At present (Fall 1979) the recorded site area is covered by very dense woods. Mr. Rex Moon, our principal informant from

Toronto, tried to assist in relocating this site, but three trips into the wooded area failed to encounter this site.

Project Impact:

The recorded site locale lies adjacent to federal property above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

Additional attempts should be made to relocate this site and to determine its present condition. If the petroglyphs remain in good condition, their rarity in Kansas would meet the eligibility criteria for inclusion on the National Register of Historic Places.

14W0206

Description:

Surveyed in 1956 by Johnson, who described this site as lying on a slight rise on the northeast side of the Verdigris River. The site measured 900 by 500 feet.

Surface Collection:

Two point tips, one biface midsection, a small core, and six flakes were recovered.

Interpretation:

The scarcity of materials collected inhibited assignment of either type or cultural affiliation for this site by Johnson or Howard.

Condition:

In recent years the recorded site location area has lain fallow, allowing the growth of dense brush and fall native grasses. Shovel tests failed to relocate this site, but did reveal a very deep layer of banded sediments that may have buried the site.

Project Impact:

The recorded location for this site lies above the level of the conservation pool, but within the limits of the maximum flood pool, where it would be subject to seasonal flooding. Such flooding probably buried this site.

Recommendation:

Until this site can be relocated, no further recommendations are feasible. Whenever the general locale's condition should change through denudation or erosion, additional attempts should be made to relocate this site. Sparse present knowledge and its unknown location preclude eligibility for inclusion on the National Register of Historic Places.

14W0207

Description:

Originally surveyed in 1956 by Johnson, who described the site as located on a slight rise on the southeast of the Verdigris River. Its extent was measured as 950 by 360 feet.

Surface Collection:

Four pieces of "workshop" stone were collected.

Interpretation:

Apparently because of the scarcity of materials, no interpretation was given for this site.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated beneath the conservation pool of Toronto Lake.

Recommendation:

None.

14W0208

Description:

Site was located on a slight rise in a plowed field on the east side of the Verdigris River where a small dry wash enters the river from the northeast. When originally surveyed by Johnson in 1956, the site's dimensions were estimated at 300 by 200 feet.

Surface Collection:

Materials collected consisted of one body sherd, a broken point, one knife fragment, four scrapers, several chert flakes, and fire-altered sandstone.

Interpretation:

The paucity of materials prevented both Johnson and Howard from offering interpretations for this site.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our sparse knowledge and the site's present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0209

Description:

Originally surveyed by Johnson in 1956, the site was described as located on a slight rise on the northeast side of the Verdigris River. Area of occupation was measured at 1100 by 300 feet.

Surface Collection:

The 1956 surface collection contained 29 pottery sherds, two projectile points, one knife fragment, one sandstone mano, and numerous chert flakes. During a second survey conducted in 1957, 80 additonal potsherds were collected along with points, scrapers, knife fragments, cores, one celt, flakes, and one sandstone abrader.

Testing:

Two 5 x 5 foot test pits were excavated by Howard in 1957 in the areas of greatest surface concentration. The soil was described as clay loam with a high humus content. Fifteen potsherds were recovered along with one projectile point, three sandstone abraders, and one mano.

Interpretation:

Johnson originally labeled this site Upper Republican, but Howard (1964) redefined it as a village with both Archaic and Aksarben components. (We suspect the Central Plains component--whether once labeled Upper Republican or Aksarben--may more likely fit into the more recently described Pomona complex.)

Conditions:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. The richness of the collection and the site's potential for producing significant information about Central Plains distributions would indicate the potential for eligibility for inclusion on the National Register of Historic Places, but its present inundated condition precludes such a nomination.

14W0210

Description:

Surveyed in 1956 by Johnson, who described this site as 1500 feet east of the Verdigris River on two small ridges separated by a shallow swale, and on the south side of a small dry wash entering the Verdigris from the northeast. This site measured approximately 500 by 400 feet.

Surface Collection:

Materials collected consisted of two body sherds, a stone drill, two scrapers, one celt, one knife fragment, and several chert flakes.

Interpretation:

With the absence of any diagnostic materials from this site, a cultural affiliation was not indicated, although a minor campsite was postulated.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our present sparse knowledge of this site and its present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0211

Description:

Originally surveyed in 1956 by Johnson, who described the site as located on the northeast side of the Verdigris River. On the southwest the site merges into a broad shallow swale, and on the northwest it is bordered by a dry wash. Site size was estimated at 1000 by 300 feet.

Surface Collection:

Cultural materials consisted of two projectile points, one celt, one knife, and two chert flakes.

Interpretation:

No determination of function or cultural affiliation could be made from the lack of diagnostic materials.

Condition:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our present sparse knowledge of this site and its present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0212

Description:

Originally surveyed in 1956 by Johnson, who described the site as on a slight rise on the southwest side of the Verdigris River. The occupation area was measured at approximately 1000 by 400 feet.

Surface Collection:

Cultural materials consisted of one knife, three chert flakes, and one utilized core.

Interpretation:

The scarcity of diagnostic materials precluded assignment of this site to any cultural complex.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our present very sparse knowledge of the site and its present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0213

Description:

Originally surveyed in 1957 by Howard, who described it as a very small site located in a gravel quarry area next to some abandoned farm buildings. No estimate on size was given.

Surface Collection:

Materials collected consisted of two projectile points, one pottery sherd, chert flakes, and a flint nodule.

Interpretation:

The lack of diagnostic materials and considerable damage to the site from quarrying activities precluded assignment by Howard of this

site to a particular cultural affiliation, although he did suggest it may have been Woodland.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our present sparse knowledge of this site and its present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0215

Description:

Recorded by Howard in 1957, this site was described as occupying a small knoll overlooking the Verdigris River to the southwest. Dimensions were not recorded, although it was mentioned that this site was limited to the knoll and a small level area near the river.

Surface Collection:

A substantial number of artifacts were collected during the original survey including 13 pottery sherds, 63 points and parts of points, 35 knives or knife fragments, one drill, one graver, some 132 utilized flakes, two axes, three manos, worked shell, and fire-reddened limestone and sandstone.

Testing:

Two 5 x 5 foot test squares were excavated during 1957 in the areas of highest concentration of materials. Few specimens were recovered from either test, although a sandstone metate was uncovered.

Interpretation:

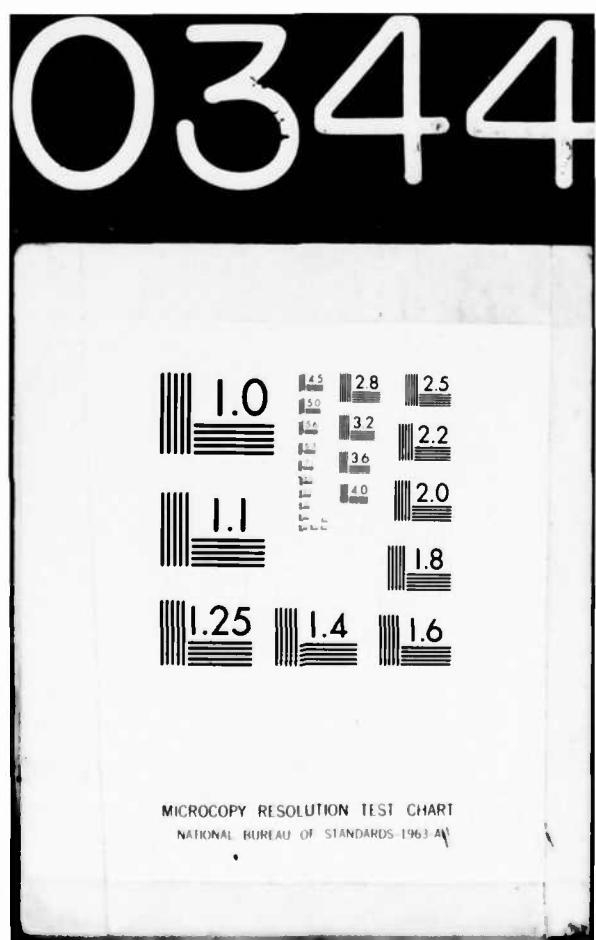
Originally, in 1957, Howard assigned the site to a Plains Woodland cultural affiliation. Later, in his formal report, the site was redefined as consisting of three components: Archaic, Aksarben, and Great Bend.

AD-A103 446 WICHITA STATE UNIV KS ARCHAEOLOGY LABS  
SURVEY AND ASSESSMENT OF THE CULTURAL RESOURCES, TORONTO LAKE P--ETC(U)  
1981 A H ROHN, S T CACIOPPO, M K KING F/G 5/6  
DACP56-79-C-0258 NL

UNCLASSIFIED

2 OF 2  
AD  
A103446

END  
DATE  
FILED  
10-81  
DTIC



Condition:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Although the richness of material from the site and the prospect for information on several components indicate potential eligibility for inclusion on the National Register of Historic Places, its present inundated condition precludes such a nomination.

14W0216

Description:

Originally surveyed by Howard in 1957, this site was described as located on the first terrace above Cedar Creek. Its total area was approximately two acres.

Surface Collection:

Two point fragments, two knife fragments, four scrapers, two chert cores, and two chert flakes were collected.

Interpretation:

The site was interpreted as a minor campsite of possibly Archaic affiliation (Howard 1964).

Condition:

Presently the recorded site area is covered by very dense woods of oak and hickory. Subsurface testing failed to relocate the site.

Project Impact:

The recorded site locale lies outside U.S.C.E. property on the edge of the maximum flood pool.

Recommendation:

Until this site is relocated, no recommendations are feasible. This site locality should be occasionally revisited to monitor any changes in ground conditions, such as denudation, that might allow relocation of this site. Its size, artifact recovery, and possible

Archaic cultural affiliation (uncommon still in Kansas) appear to meet eligibility requirements for inclusion on the National Register of Historic Places, if it could be relocated.

14W0217

Description:

Originally surveyed in 1957 by Howard, who described this site as located on a small mound in a wooded area to the "left" (?) of which was an open field. The area of occupation measured 20 by 8 feet.

Surface Collection:

One point base fragment was collected.

Interpretation:

No interpretation was postulated for the site because of the lack of cultural materials.

Condition:

The recorded site area today (Fall 1979) is heavily wooded with oak and the open field described by Howard could not be identified from the probable site locale. Shovel tests could not relocate the site.

Project Impact:

The recorded site locale lies outside U.S.C.E. property on the edge of the maximum flood pool.

Recommendation:

Until this site is relocated, no recommendations are feasible. The recorded site locale should be occasionally revisited to observe any changes in conditions, such as denudation, that might permit relocation of this site. Its small size, scant surface collection, and unknown location do not meet eligibility criteria for inclusion on the National Register of Historic Places.

14W0220

Description:

Surveyed originally by Howard in 1957, who described it as located on a terrace overlooking a road with the Verdigris River to

the southwest. The surface area was judged at one-half ( $\frac{1}{2}$ ) acre from surface debris.

Surface Collection:

Cultural materials consisted of one projectile point and one knife fragment. Numerous chert flakes were noted but not collected.

Interpretation:

The site was postulated as a minor camp but absence of diagnostic materials prevented a cultural affiliation assessment.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the Toronto Lake conservation pool.

Recommendation:

None. Our present very sparse knowledge of this site and its present inundated condition makes it ineligible for inclusion on the National Register of Historic Places.

14W0221

Description:

Originally surveyed in 1957 by Howard, who described the site as located just southeast of 14W0220. No estimation of size was given in the original report although it was mentioned that the site covered "apparently the entire field."

Surface Collection:

Five projectile points and fragments, two scrapers, one knife fragment, and chert flakes were recovered.

Interpretation:

In the original site report mention was made of Archaic and Woodland style points, but apparently there was not enough solid evidence to suggest the site's true cultural affiliation.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our sparse knowledge of this site and its present inundated condition do not warrant its inclusion on the National Register of Historic Places.

14W0222

"Walleye Shelter"

Description:

Originally surveyed in 1957 by Howard, who described the site as overlooking a small creek that enters the Verdigris River from the north and is immediately east of 14W0223. The site proper consisted of a habitation area immediately below a bluff overhang that formed a rockshelter. The area of occupation was estimated at ten feet wide below the bluff face.

Surface Collection:

Surface materials consisted of several chert flakes, one scraper, and mussel shells. Use of the area by picnickers and amateur collectors probably caused the paucity of surface materials.

Excavation:

This rockshelter and associated habitation area were completely excavated by Howard in 1957. A 40 by 10 foot excavation reached a depth of three feet to recover a maximum of cultural material. Soils were rich humus with sandstone fragments from the bluff mixed in, and at approximately 12 to 15 inches a brown sandy soil, probably derived from the sandstone bluff, appeared to continue down to bedrock.

Materials recovered during the excavation consisted of "late Horizon" triangular points, Upper Republican pottery, shell-tempered pottery, Woodland points and blades, scrapers, hammerstones, bone fragments, and mussel shell.

On a fallen slab of sandstone to the north of the rockshelter are three petroglyphs of human figures, one apparently equestrian, a few curved hoof prints, and unidentified figures.

Interpretation:

Howard (1964) reported the petroglyphs were apparently historic because of the equestrian figure, and that the site proper had four different occupations consisting of Archaic, Aksarben, Great Bend, and either historic Kansa or Osage.

Condition:

When finally relocated in the spring of 1981 from photographs in Howard's River Basin Site Survey Report, we observed that a large sandstone boulder had fallen in front of the shelter, and the block of petroglyphs was missing.

Project Impact:

Site 14W0222 is frequently inundated by the conservation pool of Toronto Lake.

Recommendation:

Obviously this site was tremendously important to understanding the Toronto locality. Thankfully, Howard's excavations in 1957 apparently salvaged the majority of information from the site, and his photographs are useful. Since it has been completely excavated and is frequently under water, this site would not qualify for inclusion on the National Register of Historic Places.

14W0225

Description:

Originally surveyed by Howard in 1957, this site was described as a small rockshelter on a hill beside a road surrounded by brush and scrub brush. The size of this shelter was not given, but apparently one petroglyph was found on the interior.

Surface Collection:

None.

Interpretation:

The lack of cultural materials led to no interpretations.

Condition:

Presently beneath the waters of the Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool.

Recommendation:

None. Our sparse knowledge of this site and its present inundated condition would not warrant inclusion on the National Register of Historic Places.

14W0227

Description:

Surveyed originally in 1957 by Howard, who described this site as a rockshelter adjacent to Cedar Creek and a 20 by 20 yard area immediately in front of it.

Surface Collection:

Two Upper Republican pottery body sherds, one bone flaking tool, and numerous chert flakes were recovered.

Interpretation:

Although Howard describes the two sherds as Upper Republican, his formal report (1964) on Toronto placed the site in the Aksarben Phase and described the site as a village.

Condition:

The recorded site locale is presently in a heavily wooded area. Although the rockshelter is easily located, no evidence of the site could be found.

Project Impact:

The site is situated on the edge of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to monitor its condition. A limited test should be excavated into the site space in front of the rockshelter to provide additional information about it. Our present sparse information does not meet eligibility criteria for inclusion on the National Register of Historic Places.

14W0228

**Possum Point Site**

**Description:**

Surveyed originally in 1957 by Howard who described it as located on a series of small, low knolls bordered on the northeast and west by Finger Creek and sandstone bluffs to the south. The area of occupation appeared to cover approximately one acre.

**Surface Collection:**

Surface material consisted of 17 pottery sherds, three projectile points, a knife fragment, and one sandstone abrader.

**Excavations:**

Five excavation units, each 5 x 5 feet square, were dug at 14W0228. Soils were dark sandy loams which extended to a depth of three feet before encountering bedrock.

Materials recovered during the excavation comprised numerous pottery sherds, one point, a possible metate, and chert flakes. All materials extracted came from the top six inches of the excavation.

**Interpretation:**

In the original site report of 1957, Howard designated this site as Plains Woodland, but in the published report in 1964, he indicates a two-component site affiliated with Archaic and the Great Bend Aspect.

**Condition:**

Presently beneath the waters of Toronto Lake conservation pool, the site could not be revisited.

**Project Impact:**

Inundated by the conservation pool of Toronto Lake.

**Recommendation:**

None. Although materials collected from this site would indicate potential eligibility for inclusion on the National Register of Historic Places, its present inundated condition precludes its nomination.

14W0231

Description:

Originally surveyed in 1957 by Howard who described it as located on a small rise in a plowed field. The area of occupation was estimated at 40 by 120 yards.

Surface Collection:

Two projectile points, two knife fragments, and two scrapers were recovered during the survey.

Interpretation:

Although Howard believed he had examples of either early Woodland or Archaic points, the few artifacts collected precluded a definite assignment to a specific cultural affiliation.

Condition:

Presently beneath the waters of Toronto Lake conservation pool, it could not be revisited.

Project Impact:

Inundated by the conservation pool of Toronto Lake.

Recommendation:

None. Our sparse knowledge of this site and its present inundated condition would not warrant its inclusion on the National Register of Historic Places.

14W0301

Description:

This site is located on the bluff top between a public use road and the edge of sandstone cliffs overlooking the lake in the Toronto Point recreation area. The site measures 15 x 10 meters and is most probably in the Osage member of the Verdigris-Osage Soil Association.

Surface Collection:

The surface collection from 1979 included one biface fragment, five utilized flakes, and 27 unmodified chert flakes. The original survey by the Kansas State Historical Society recovered only chert flakes.

Testing:

Four small shovel tests were excavated, but the soil over the majority of the site covered sandstone bedrock for only 5 to 10 cm., and no material was recovered.

Interpretation:

At most, this site may have been a temporary camp or a specialized use area such as a lookout because of its position providing an excellent view over the Verdigris Valley. No cultural affiliation can be assessed from the available surface collections.

Condition:

Regularly mowed grass covers the site at present. The land has never been cultivated because of the shallow soil. Campers regularly use this ground and have dug three or more fire pits into the site.

Project Impact:

The site lies in a public use area for Toronto Lake. At least three fire pits have been dug into the site by campers, and a great deal of road gravel has been strewn across the site.

Recommendation:

The site should be revisited periodically to collect additional cultural materials that might appear on the surface. Our present sparse knowledge, small size, and thin deposit do not meet eligibility criteria for inclusion on the National Register of Historic Places.

14W0303

Description:

This site is located on the bluff top in the Toronto Point public use area just south of a circular public drive, and is bordered by a sandstone outcropping on the south immediately above the beach. Picnic benches cover the site whose eastern and western boundaries were marked by the extent of lithic scatter. The site measures 60 x 20 meters, and is in the Osage member of the Verdigris-Osage Soil Association.

Surface Collection:

Lithic materials covered the entire site. One point tip, one flake scraper, five utilized flakes, and 87 unmodified flakes were

recovered in 1979. The original survey by the Kansas State Historical Society recovered only chert flakes.

Testing:

No testing was conducted because obvious sandstone bedrock exposure indicated very shallow soils.

Interpretation:

The size of the site suggests a campsite of unknown cultural affiliation with at least periodic use. This site would have overlooked the Verdigris River valley and may have served as a lookout station.

Condition:

Regularly mowed grass covers the site at present. The land has never been cultivated because of the shallow soil. Campers regularly use this ground and are clearly eroding the site's surface.

Project Impact:

This site lies in a heavily trafficked public use area for Toronto Lake. Campers and picnickers appear to be causing a great deal of destruction to this site.

Recommendation:

The site should be revisited periodically to collect additional materials as public use exposes them. A limited excavation should be planned to salvage information that will be lost as this site deteriorates. Present sparse knowledge and its poor condition prevent this site from meeting eligibility criteria for inclusion on the National Register of Historic Places.

14W0503

Description:

This site occupies a low mound following the second terrace alignment along Cedar Creek. It is bordered on the west and north by tree lines and on the south by the access road. The site itself rests on a gentle slope of the mound. At the western edge was a concentration of sandstone chunks in which three of the pieces exhibited fire-reddening. The site measures 25 x 25 meters and is located in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

The surface scatter was quite heavy on first encounter. One point base that fits the overall description of a Langtry point (Bell 1958: 38) (Fig. 18a), two scrapers (one a thumbnail end scraper and one a simple flake scraper), a biface fragment exhibiting beveling on one edge suggestive of a knife blade, and the base to a drill were collected. No prehistoric pottery was recovered although one rimsherd from a historic vessel was collected.

Testing:

Testing was attempted but soil saturated from a recent rain at the time of survey prevented an information recovery.

Interpretation:

This was at least a temporary campsite although the fire-reddened sandstone concentration may reflect a more sedentary occupation. The absence of prehistoric pottery and the presence of the Langtry point and other stone artifacts suggest a Woodland cultural affiliation.

Condition:

At the time of survey (Fall 1979) the site was in a cultivated field planted in winter wheat. Erosion is affecting the site's western portion because a great deal of earth has washed into the drainage gully to the west.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to enhance its surface collection and to monitor the effects of erosion and farming practices on its condition. The relatively high proportion of tools in the surface collection and the prospect of a small campsite or habitation of the poorly understood Woodland occupation of southeastern Kansas suggest a testing program is needed to fully assess its eligibility for inclusion on the National Register of Historic Places.

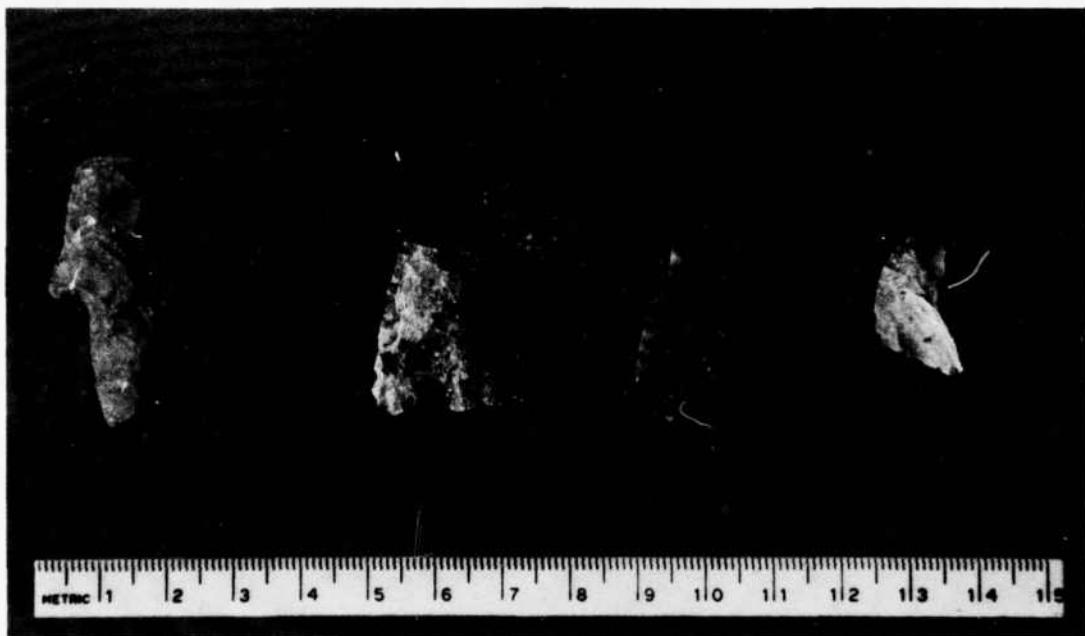


FIGURE 18. 14W0503 - SURFACE ARTIFACTS

I

14W0504

Description:

The site is located in an open field with no natural topographic feature marking its boundaries. A small lake lies some 20 meters to the east while tree lines border the area to both east and south. Fence lines on the north and west mark this area into a single field distinct from others in the vicinity. The site measures 45 x 15 meters, and is located in the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Surface material was quite meager, although some artifacts were found. One point, missing only the tip, has a Fresno-like (Bell 1960: 44) appearance, but its overall larger size and the presence of an off-center basal notch exclude it from this category. Of two bifaces found, one appears to be the midsection of either a point or a knife, and the other was possibly used as a scraper. A fragment of a nicely flaked end scraper was also collected. Historic material included three pieces of pottery, two glass sherds, and one metal object of unknown use.

Testing:

No subsurface testing was conducted.

Interpretation:

The site might have been a temporary campsite of unknown cultural affiliation. Apparently the lake to the east was once a part of Cedar Creek and would have made the area an ideal camping location during prehistory. The historic material suggests the presence of early Euroamerican settlers. Several concrete slab foundations near this site mark the location of historic farmhouses that were apparently moved prior to construction of Toronto Lake.

Condition:

At the time of survey (Fall 1979) the site was planted in winter wheat. There is little evidence of erosion.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

This site should be revisited periodically to enhance its surface collection and to monitor the effects of farming activities on

its condition. Present sparse knowledge does not meet eligibility criteria for inclusion on the National Register of Historic Places, although the potential for future inclusion could exist.

14W0505

Description:

This site is located on a very narrow ledge between a tall sandstone cliff and the west bank of Cedar Creek. The ledge slopes rather drastically down to the water's edge, although the site itself occupies a relatively level shelf. The site measures 5 x 2 meters. Soils have been almost completely washed away by creek flooding, but the association would probably fit the Verdigris member of the Verdigris-Osage Soil Association.

Surface Collection:

Materials consisted of 11 very small chert flakes, none of which showed any utilization. All but one were long and narrow thinning flakes.

Testing:

The entire area was shovel-scraped in an attempt to recover more material, but the soil was so thin (less than 5 cm.) only a few scrapes with the shovel exposed bedrock sandstone. A small rockshelter two meters south of the site was intensively tested, but no cultural material was recovered.

Interpretation:

The location of this site precludes its use as either a temporary camp or any kind of habitation. More likely it represents a one-time chipping station for the resharpening of stone tools. No cultural affiliation could be assessed.

Condition:

This site has been thoroughly investigated and no longer exists.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

None.

14W0506

Description:

Located in the Spring of 1981, Site 14W0506 lies at the head of a natural ravine that is outlined by an outcropping sandstone ledge and formerly fed into Miller Creek. The site consists of a permanent pool of fresh water behind a low dam of earth and stones and surrounded on its other three sides by outcropping sandstone (Fig. 19). Pecked into the face of the outcrop within the runoff channel are three "catch basins" and a pecked line that starts above catch basin #1, runs along the west side of this basin and continues down the face of the sandstone to a point just above the pool (Fig. 20). The three basins form a straight line with a north 49° west orientation. All three basins readily collect runoff water, and a small trickle of water in the channel will invariably follow the pecked line. No definite evidence of human activity can be seen on the earth and stone dam, but it cannot be explained as the result of purely natural processes. The site measures 12 x 7 meters overall.

Surface Collection:

A single chert flake was recovered from a rock just downstream from this site, but it could have been redeposited by recent heavy rainwater runoff.

Testing:

No subsurface testing was conducted at the site.

Interpretation:

Although it is presently unique in Kansas, this site was discovered because of several similarities to pecked bedrock features employed by the prehistoric Pueblo peoples of the American Southwest to direct and control water flow. Site 14W0506's pecked bedrock features do not seem to function effectively in this manner, however, unless the volume of water is quite small. The pool and dam do not appear to be natural. Since the pool was full at the time of discovery, following an unusually dry year and snow-free winter, it is probably spring fed. Consequently, the best current explanation for these features would see the pool as a dependable water source for nearby sites and the pecked bedrock features as symbols, markings, or paraphernalia for ritualistic practices associated with this water source. The site lies equidistant (about 400 meters) between rock art Sites 14W0202 and 14W0204, and it lies within 300 meters of Site 14W0222 that yielded occupations ranging from Archaic through Historic. Thirteen additional sites lie within one mile of this site in the former valleys of Miller Creek and the Verdigris River.



FIGURE 19. 14W0506 - VIEW OF FEATURES PECKED INTO BEDROCK

SITE I

0  
ME

CB-CATC

FIGURE 20

POOL

BEDROCK

PECKED GROOVE CB I

CB 2

PROFILE

CB I

POOL

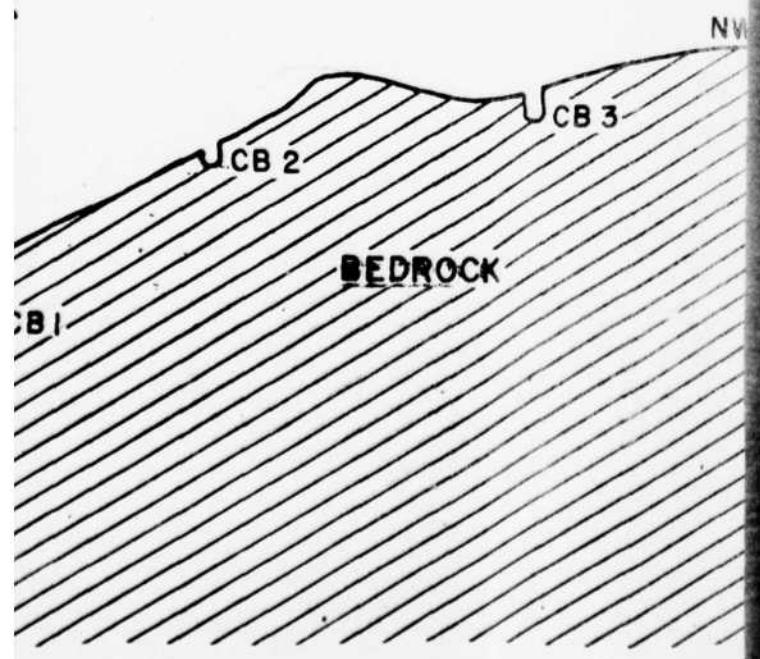
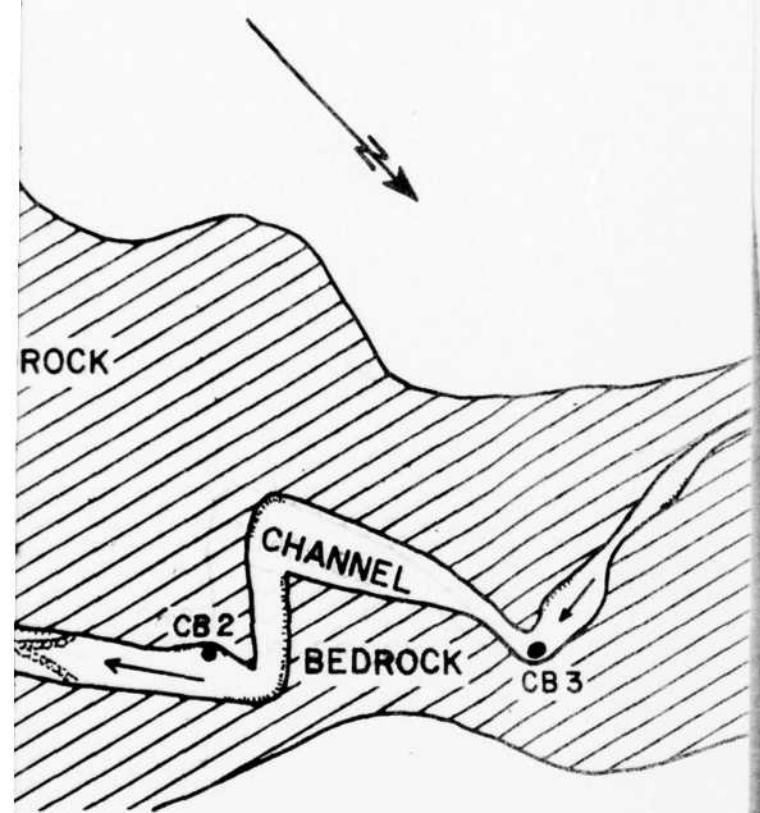
10 106

# SITE 14W0506

0 1 2  
METERS

CB - CATCH BASIN

FIGURE 20. PLAN AND PROFILE



Condition:

The site is located in an area of oak woods and underbrush and has not been disturbed.

Project Impact:

Site 14WO506 lies well above the maximum flood pool level of Toronto Lake and near the boundaries of Corps' land.

Recommendation:

This site should be preserved from damage by users of Toronto Lake and Park and by any future construction. Because of its uniqueness and completely undisturbed condition, this site has potential significance for nomination to the National Register of Historic Places.

**Historic Sites**

14GR518

Description:

This site is situated on the summit of a high hill overlooking the Verdigris River. The locale is heavily forested and apparently infrequently visited, for there are no marked paths into it. The hilltop location is bordered on the north and east and south by outcropping sandstone. From the site, a drainage to the Verdigris River can easily be seen.

The site is a single grave site measuring  $2\frac{1}{2}$  x 1 meters. A retaining wall of dressed limestone blocks mortared together rather haphazardly surrounds the grave. A single grave stone, broken in half, contained the following inscription (Fig. 21):

Ada Gleason

Departed this Life

Sept. 19, 1870

Aged 11 month

5 days

Neither Mr. Rex Moon, our primary informant from Toronto, nor nearby local residents were aware of any persons or family by the name of Gleason who lived in the area now or in recent memory.



FIGURE 21. 14GR518 - GRAVESTONE

Surface Collection:

None.

Interpretation:

This grave for a young child may reflect a death among a family traveling through the region in 1870.

Condition:

Intact except for the broken and displaced grave stone.

Project Impact:

This site is situated above the level of both the conservation and flood pools, but within the limits of maximum flooding, where it would be isolated as a small island at high water.

Recommendation:

None. The isolated situation of this site protects it at present. The absence of trash from hunters or campers indicates the locale is infrequently visited. The absence of information and the small size would not satisfy eligibility criteria for inclusion on the National Register of Historic Places.

14GR519

Description:

This site is located in a slight depression some 10 meters from the banks of the Verdigris River. The area is heavily wooded and the undergrowth is quite dense. The site consists of a building foundation rising above ground surface, measuring 10 x 6 meters, and a small cluster of concrete slabs to the south. The foundation has three distinct sections (Fig. 22), representing at least two stages of construction. Section A forms a 3½ meter square platform of wall construction, standing about 50 cm. high with a concrete floor near its top. The limestone slabs are undressed and rather haphazardly arranged. At the time of survey (Fall 1979) the concrete floor was covered with a very thin layer of earth through which we excavated a small test recovering only a few nails.

Section B is a smaller addition adjoining Section A on the east and built of concrete consolidated with large amounts of shell and local gravel. A test trench was dug across the entire width of this room, exposing only 2 to 3 cm. of fill covering a flooring of lightly compacted river gravel at the level of the surrounding ground

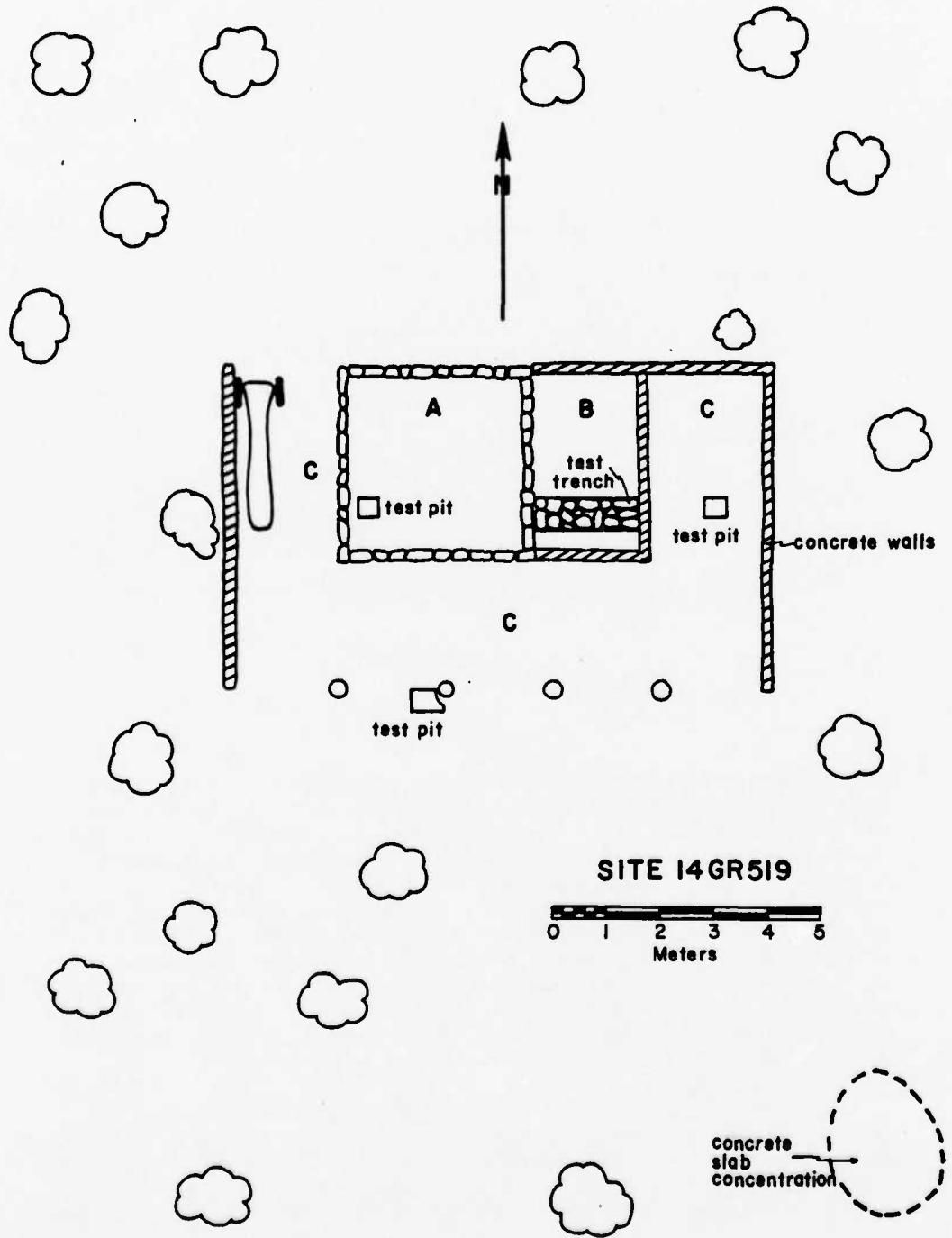


FIGURE 22. 14GR519 - PLAN

surface. The test trench yielded nails and one piece of barbed wire.

Section C may be contemporaneous with Section B because it has the same wall construction, but it lacks the gravel flooring. It expanded the enclosed area to the east, south, and west, with new foundation walls on the west, north, and east. A large steel cable is implanted about 25 cm. (halfway) above floor (ground) level in each of these walls. A test pit dug in this section produced some nails and encountered two large sheets of corrugated metal roofing. Forming the south side of the enlarged space enclosed by Section C is a row of four circular, low (30 cm.) concrete post footings, each with an iron bolt or rod placed upright in the center. A third test pit was dug by one of these posts and it uncovered a large amount of charred wood.

A dense concentration of small concrete slabs occurs about 8 meters to the southeast of the foundation. The concentration measures 3 x 3 meters. No collection was made from this spot.

Surface Collection:

None. The only cultural materials recovered came from the test excavations.

Interpretation:

Obviously, the foundation once supported a building, although the plan does not resemble usual farmhouses or barns. Clearly the platform underlay only a portion of the total structure. A large piece of abandoned farm machinery rests in the western end of Section C--a sort of hopper on metal wheels. This structure apparently burned at one time leaving the charred wood. It might have been a farm shed. Since we recovered mostly round wire nails--only three were square--and observed collapsed corrugated metal roofing, this structure probably postdates A.D. 1900. The concentration of concrete slabs might have once been a foundation for a small round structure associated with the building.

Condition:

The foundation's concrete walls are rapidly deteriorating. They are very brittle and in places, crumble to the touch. The surrounding landscape supports an open woodland.

Project Impact:

This site is situated above the level of the conservation pool, but within the limits of the maximum flood pool, where it is subject to seasonal flooding.

Recommendation:

This site should be revisited occasionally to monitor any changes in its condition. It appears to lack any of the major criteria for eligibility to be included on the National Register of Historic Places--its superstructure is gone, it has no well recognized connection with historically significant events or persons, and its condition is rapidly deteriorating.

## V. SUMMARY AND RECOMMENDATIONS

Previous archaeological surveys of the Toronto Lake area (Howard 1964; Johnson 1957) had recorded 42 archaeological sites within the present U.S.C.E. administered boundaries, and noted several additional sites close by. This most recent resurvey conducted over the winter of 1979-80 was able to relocate only 8 of the earlier recorded sites, but identified 20 new archaeological sites and 2 new historic sites within the federally-owned lands. Two additional archaeological sites (one newly surveyed) lie on the boundaries with the majority of their extent outside. This brings to 64 the total number of cultural resources considered in this report.

Of the 34 previously known sites that could not be relocated, 19 have been completely inundated by the present conservation pool, one has been destroyed by highway construction, and the remaining 15 have been obscured by sedimentation or dense vegetation. Consequently, only 30 cultural resources can be positively identified at the present time (1981).

Assembly of all the extant information about the 64 total cultural resources at Toronto Lake, using published literature, unpublished notes and records, and recent visits, permits the reconstruction of a culture historical outline for the Toronto district. Such an outline should help delineate problems to direct the course of future investigations.

### Toronto Culture History

To date no positive evidence for Paleo-Indian or early Archaic occupation at Toronto has yet appeared. The earliest human inhabitants presently known practised a late Archaic life-style. Archaic projectile point styles have been recognized in the collections from nine of the Toronto sites (Fig. 23). As yet none of the evidence permits a positive identification with any of the previously described Archaic complexes from southeastern Kansas, such as Chelsea, El Dorado, Walnut, and Colvin phases. Identifiable projectile point styles from Toronto's Archaic sites include Gary, Langtry, possibly Table Rock, and several stemmed and side-notched styles.

Among the identifiable cultural components at Toronto, Woodland materials predominate (Fig. 24). At the time of the first surveys by Johnson and Howard (mid-1950's), the Woodland occupation of southeastern Kansas was virtually unknown. Consequently, both investigators judiciously employed labels from northern and western Kansas for their survey collections. Since then Marshall (1972) has defined

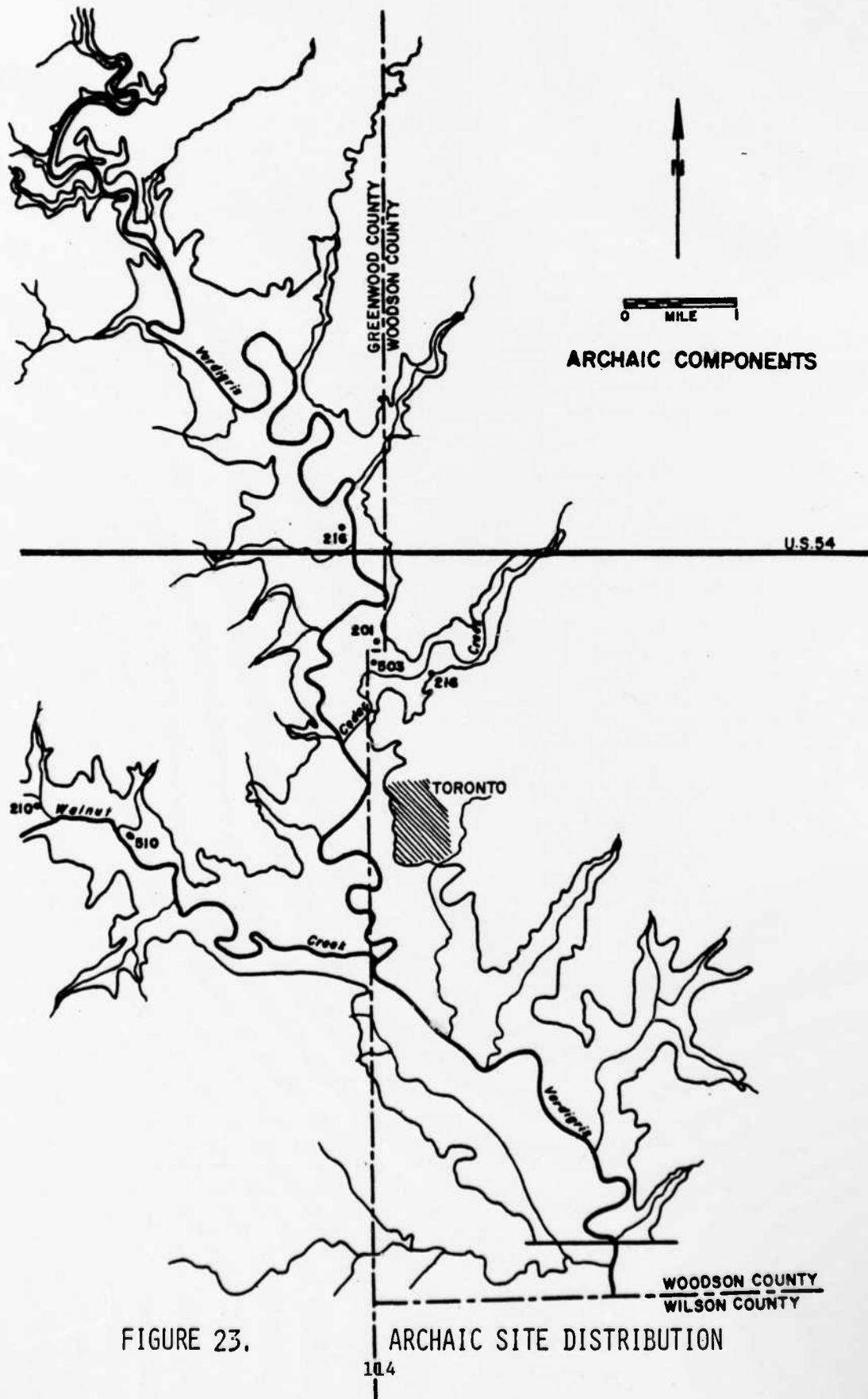
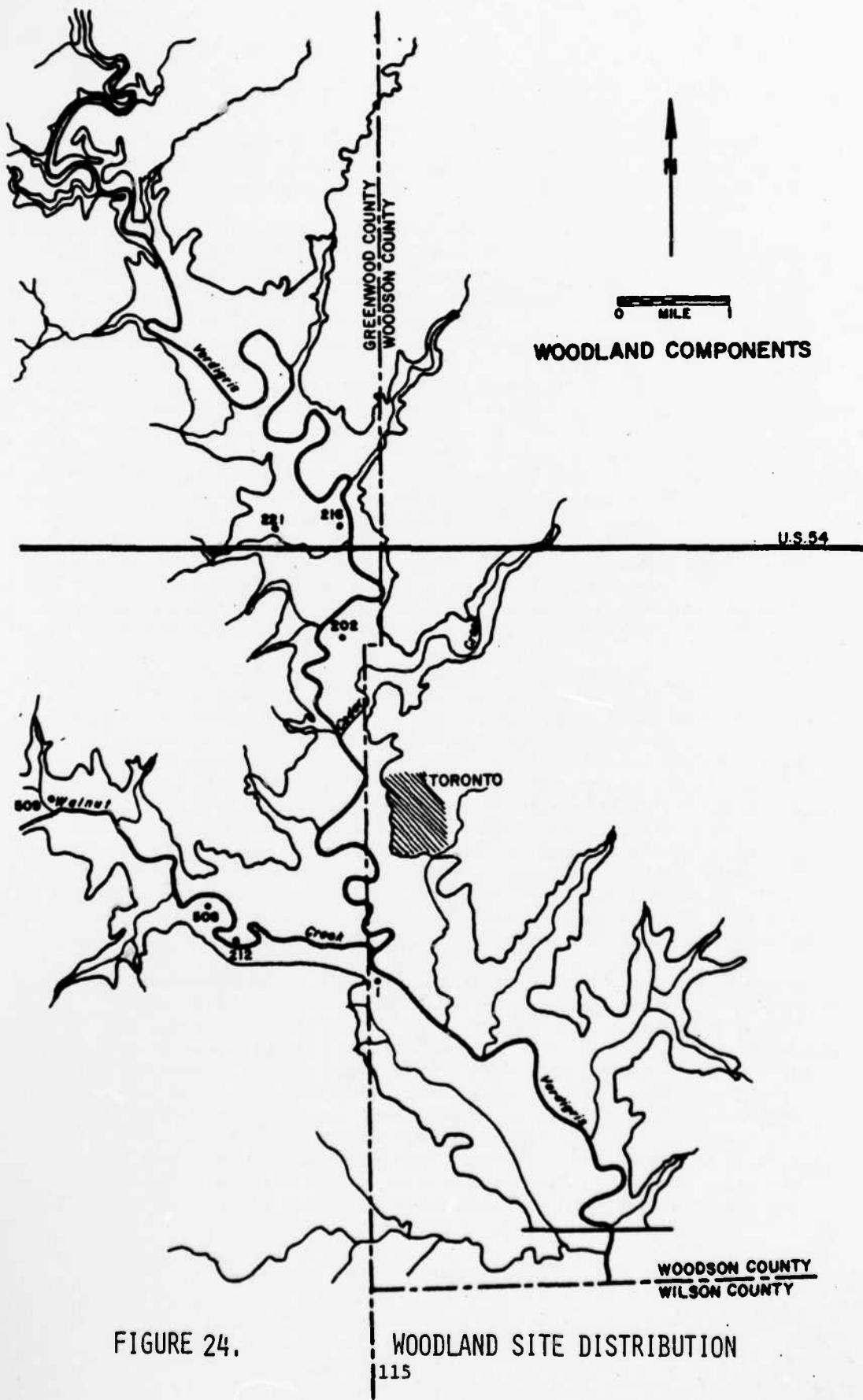


FIGURE 23.



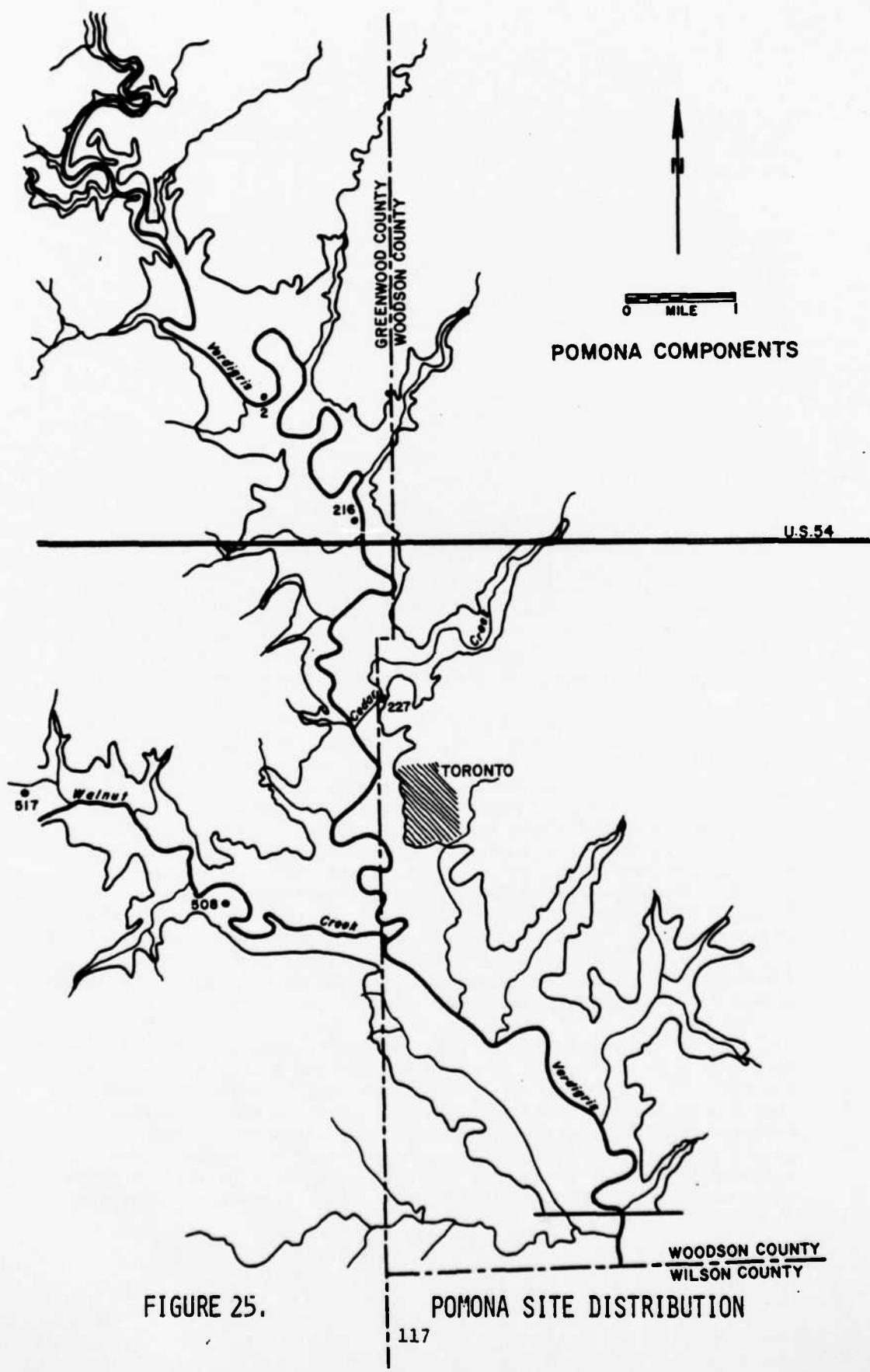
the Cuesta Phase from excavations on the Elk River, 30 miles south of Toronto. We suspect those remains originally identified as Kansas City Hopewell more likely would fit into the Cuesta Phase.

Cuesta Phase. Four Toronto sites have yielded projectile point styles, pottery, and other artifacts distinctive of this phase. Site 14GR202 was relocated and Site 14GR509 was surveyed during this project. Sites 14GR212 and 14W0203 could not be relocated because of unfavorable conditions. We suspect many other sites presently listed simply as "Woodland" or "unknown" may actually contain Cuesta remains.

Other Woodland complexes. Nine additional Toronto sites definitely contain Woodland style remains--grit-tempered cord-marked pottery; large projectile points of the Gary, Langtry, corner-notched, and expanding stemmed styles; small projectile points of a general Scallorn shape; chipped bifaces; and ground stone celts. While several of these could actually belong to the Cuesta Phase, we feel several components may actually represent a non-Cuesta Late Woodland complex as yet undefined. Johnson and Howard suggested a possible Keith Focus identification for several sites. The recently emerging picture of a Greenwood Phase may also fit some of these materials. Clearly, only excavations can produce sufficient information to clarify our understanding of the Woodland occupations at Toronto.

Central Plains/Pomona. Because of the absence of well-defined cultural entities from southeastern Kansas, both Johnson and Howard preferred to suggest possible affinities for the Toronto materials in terms of known complexes in Nebraska and northern Kansas. The labels "Upper Republican" and "Aksarben" were applied to six sites producing cord-marked pottery, small notched triangular arrow points, and end scrapers. Both refer to representatives of the Central Plains Tradition. Unfortunately, we were unable to reexamine the original collections, but we suspect these same materials would more likely represent the more recently defined Pomona Phase (Witty 1967; Wilmeth 1970). Many chipped stone artifacts and ceramic characteristics are shared by Central Plains and Pomona. Our survey recorded one new site--14GR508--with a definite Pomona component (Fig. 25).

Great Bend. Howard identified three Toronto components as expressions of the Great Bend Aspect from south central Kansas. Presumably these sites yielded plain shell-tempered pottery and other characteristic Great Bend artifacts. If these are truly Great Bend sites, they lie more than 40 miles east of the easternmost well-established Great Bend distribution. While these three sites could represent outlying camps for specialized resource exploitation by Great Bend peoples, they also reflect Howard's choice to apply clearly described cultural names from elsewhere to materials in a virtually unknown southeastern Kansas. Other plain pottery styles are common in northern Oklahoma and some Pomona pottery commonly



has plain surfaces. We suspect the collections from these sites should be reexamined in the light of more recent excavations in southeastern Kansas.

Historic. Sites occupied by historic Indian groups are currently unreported from Toronto, and historic Euroamerican sites are rare. Site 14W0222 has already been inundated and the significance of Sites 14GR518 and 14GR519 is questionable. Apparently both Indian and Euroamerican historic activities occurred primarily outside the present Toronto Lake property.

#### Potential Environmental Relationships

The general inability to assess precise cultural affiliations for many of Toronto Lake's archaeological sites makes it impossible to derive very useful statements about the prehistoric settlements' use of the environment. There was obviously a general tendency to camp or to live near the stream banks where water would be readily accessible. At the same time the wooded belts along the streams would be handy for exploiting their food resources, building materials, and firewood. Since virtually all the archaeological sites recorded lay within or adjacent to this gallery wooded zone, we can infer that stream and/or woodland resources were more important at all occupational times than the adjacent tall-grass prairies.

The major soil complex for the Toronto Reservoir district is the Verdigris-Osage Association. These are deep, nearly level, poorly drained to moderately well-drained soils that have a silty clay loam or silty clay subsoil and underlying material. On flood plains of the larger streams this association consists of soils that formed in clayey and loamy alluvium. Areas of this association are nearly level except for abandoned stream channels and low, narrow benches adjacent to the active streams. To date, no in-depth study of soils on the Greenwood County side of the reservoir has been published. Therefore, sites along portions of the Verdigris River and Walnut Creek in Greenwood County could only tentatively be assigned to this soil complex. When a detailed soil map for the entire Toronto Reservoir has been completed, it should be possible to reconstruct former vegetation zones more fully.

An example of the close associations between archaeological site locations and stream channels may be seen along the lower reaches of Cedar Creek just before it enters the Verdigris River. Remnants of former channels for both Cedar Creek and the Verdigris indicate alignments different from their present ones. Figures 26 and 27 present two possible interpretations of the former channel alignments, both of which show a closer congruence to the distributions of sites in the locality. Since all of these sites represent

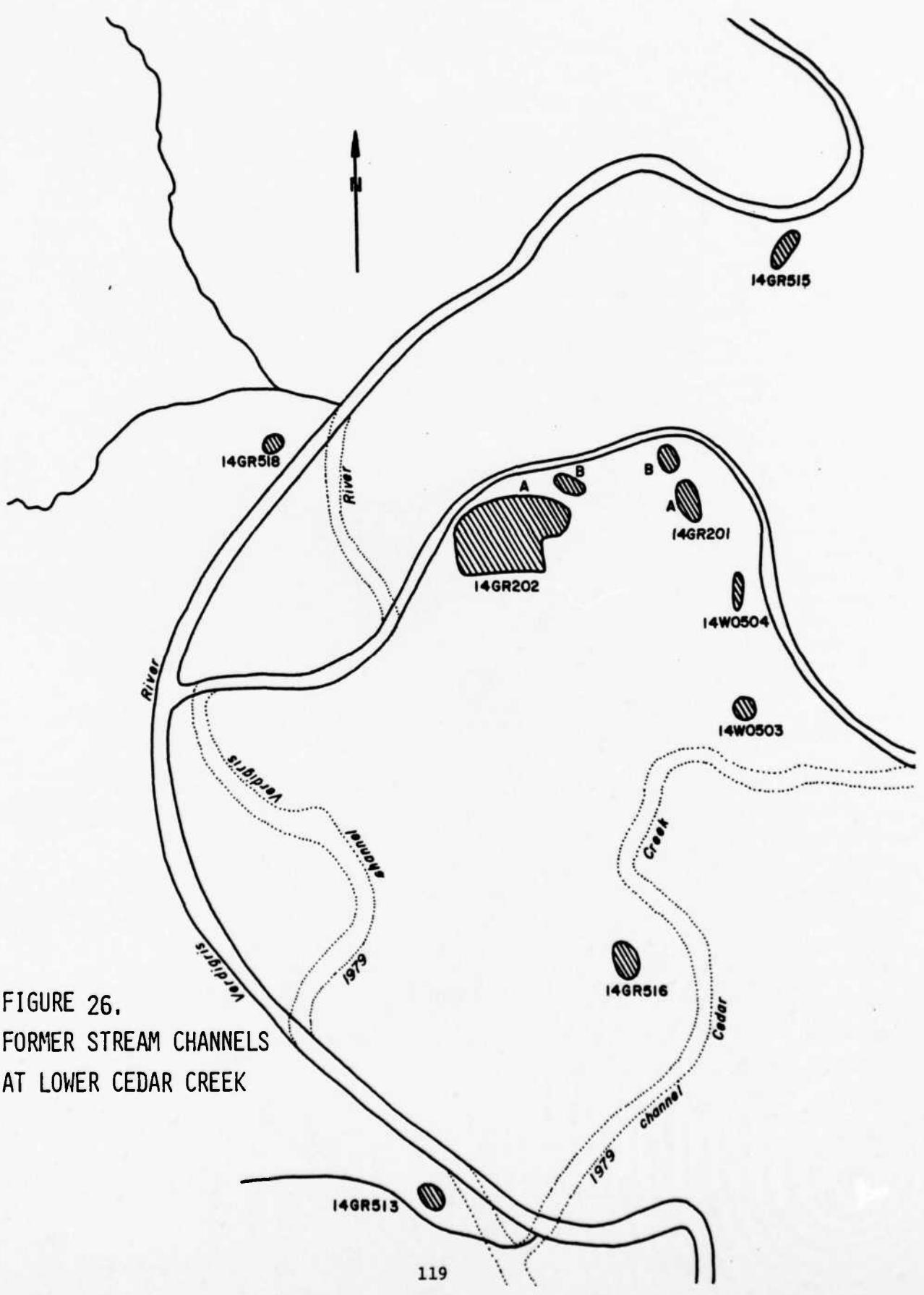
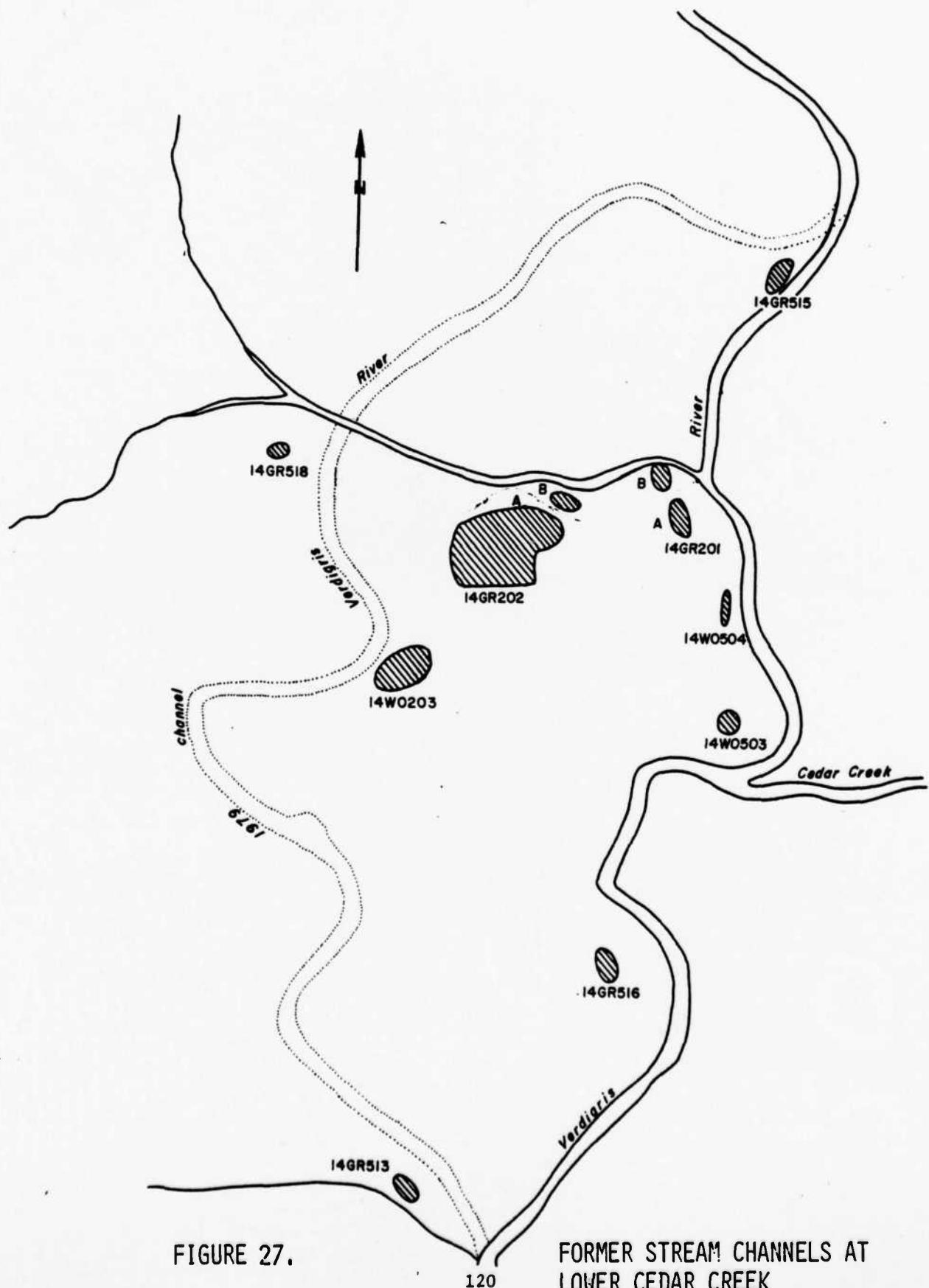


FIGURE 26.  
FORMER STREAM CHANNELS  
AT LOWER CEDAR CREEK



a Woodland cultural affiliation or the potential to be Woodland sites, we could possibly speculate the former existence of a Woodland age settlement along the banks of the former stream channels. We might even speculate further that the settlement belonged to the Cuesta Phase of the Woodland tradition.

#### Present Conditions and Project Impact

It soon became apparent during our 1979-80 survey that environmental conditions had changed significantly in the 24 years since the completion of the investigations by Johnson and Howard. Toronto Dam had been constructed, impounding the waters of Toronto Lake on the Verdigris River and several small tributaries. The lake's conservation pool has inundated 20 archaeological sites. Periods of heavy precipitation seasonally enlarge the lake to its maximum flood stage, covering an additional 43 archaeological sites.

The combination of a permanent lake with water levels fluctuating according to seasonal precipitation has wrought a variety of changes in the natural processes of sedimentation and erosion. Many formerly exposed land surfaces have been covered with alluvium up to several feet thick apparently burying many of the archaeological sites (such as 14GR206, 14GR207, 14GR208, 14W0207, 14GR212, 14GR213, and 14GR214) recorded in the 1950's. At the same time, erosion has removed overburden from other zones, exposing additional archaeological sites that were apparently not visible 25 years ago.

In adapting to the newly created hydrologic conditions, farmers and land managers have altered their patterns of land use around Toronto Lake. Obviously, former farmlands covered by the conservation pool could no longer be cultivated. In addition, many other low-lying fields subject to frequent flooding retained too much moisture to facilitate regular farming, and they have been allowed to go fallow, reverting to a succession of natural vegetation. In most instances this vegetation has obscured the once visible ground surface. Several fields are still farmed regularly, but erosion has severely increased the removal of topsoil causing each new plowing to cut deeper into previously undisturbed soils. This last process has served both to expose additional sites and to threaten them with increasing damage. It would require a project-wide study of soil conditions and changing vegetation-land use patterns through old aerial photographs to provide detailed documentation of these conditions and to determine their distributions.

### Significant Cultural Resources

The significance of each identified cultural resource at Toronto was assessed according to the criteria of potential eligibility for inclusion on the National Register of Historic Places as listed in 36CFR63, Part 1204. Greatest weight was accorded to the site's potential for yielding important information about prehistory or history in southeastern Kansas in terms of richness of known materials, scarcity of similar sites, presence of two or more occupational components, and relationships to other known sites and cultural complexes. The present condition of the resource also weighed heavily in this assessment. Sites that have already been excavated or destroyed or that could not be relocated possess a relatively low information potential.

Nine of the archaeological sites (Table V) are considered to possess sufficient information potential to be eligible for inclusion on the National Register of Historic Places. Two of these (14GR201 and 14GR210) are Archaic sites. Five others (14GR202, 14GR505, 14GR509, 14GR517, and 14W0503) represent the most intensive occupation of Toronto during the Woodland Stage. They should aid our broader understanding of the Cuesta Phase and perhaps delineate a separate non-Cuesta Woodland occupation for the region. Two sites (14GR216 and 14GR508) apparently contain evidence for two or three occupational components, and should provide useful chronological information even though 14GR216 has been extensively tested.

One additional Archaic site (14GR510) seems to possess less potential than the others, but should probably meet eligibility standards for the Register of Historic Kansas Places. None of the other sites meet adequate standards of size, potential richness of artifacts or features, satisfactory conditions of preservation, or relative scarcity of similar finds to merit specific recognition at this time. Additional information obtained from future visits to several of these sites, however, could indicate a need to modify their status. Neither of the two Euroamerican historic sites (14GR518 and 14GR519) seems to contain important or unusual information.

### Recommendations

Because we know but a smattering of Kansas prehistory, literally all archaeological sites have significance. The current rate of destruction of these sites by land and resource development greatly enhances the value of those sites that can be preserved. Consequently, we offer a series of recommendations to provide a plan for both the preservation of as much information potential as possible and the recovery of a maximum of that information threatened with loss.

Toronto Lake has already been built, so the danger of future adverse impacts on cultural resources stems from altered processes of erosion and sedimentation plus changing land-use patterns and any future modifications of lake level.

1. The ten archaeological sites identified above and in Table V should be further investigated to initiate nomination for inclusion on either the National Register of Historic Places (14GR201, 14GR202, 14GR210, 14GR216, 14GR505, 14GR508, 14GR509, 14GR517, and 14W0503) or the Register of Historic Kansas Places (14GR510). Although all might require testing, this would afford them some protection against destruction and require their fate to be included in future planning for this district. It might even be possible to develop an active program for their preservation.

2. A program of periodic revisits should be developed to monitor changing conditions (and damage) to most of the relocated sites, and to increase the surface collections from them. Annual or biennial visits at favorable seasons should ultimately allow fuller interpretations of cultural affiliation or function for many of the presently "unknown" sites. At the same time, periodic reexaminations may relocate some of those sites whose exact locations could not be confirmed during the 1979-80 survey.

3. Since the maximum flood pool for Toronto Lake extends well beyond the boundaries of federal property, lands adjacent to the lake should be surveyed to ascertain possible adverse impacts from this flooding on cultural resources situated there. The surveys of Johnson, Howard, and our own indicate archaeological sites are present on these lands. Furthermore, sites found on adjacent lands may over the long term be more easily preserved from future adverse impacts than similar sites on federally-administered lands.

4. A reexamination of the field notes and collections of the 1950's surveys, now housed in the U. S. National Museum in Washington, D. C., compared to the collections of 1979-80 would permit a uniform interpretation of Toronto culture history and prehistoric exploitation of this region. It would also provide a sounder assessment of the significance for each recorded cultural resource, especially where many of them cannot be relocated.

5. A program of additional archaeological investigation through testing and possibly excavation should be conducted for three key archaeological sites currently suffering damage from a combination of erosion and intensive farming activities. Sites 14GR202, 14GR210, and 14GR508 are three of the largest and most significant Toronto sites in terms of information potential. All three lie above the level of the conservation pool, but go under water during maximum floods. All three are farmed regularly and exhibit signs of surface erosion. Each should be tested extensively to determine the quality of subsurface preservation and the extent of damage. Site 14GR202 may require more extensive mitigation.

TABLE V. SUMMARY OF TORONTO SITE RECOMMENDATIONS

<u>Site No.</u>	<u>Cultural Affiliation</u>	<u>Significance</u>	<u>Site Status</u>	<u>Project Impact</u>	<u>Recommendation</u>
14GR1	Unknown		Not relocated	Under water	
14GR2	Upper Republican		Not visited		
14GR201	Archaic	National Register	Relocated	Flood Pool	Periodic revisit Limited testing
14GR202	Cuesta	National Register	Relocated	Flood Pool	Periodic revisit Limited testing Ultimate mitigation
14GR203	Unknown		Relocated	Flood Pool	Periodic revisit
14GR204	Unknown		Not relocated	Flood Pool	None
14GR206	Unknown		Not relocated	Flood Pool	None
14GR207	Unknown		Not relocated	Flood Pool	None
14GR208	Unknown		Not relocated	Flood Pool	None
14GR209	Unknown		Not relocated	Destroyed	None
14GR210	Archaic	National Register	Relocated	Flood Pool	Periodic revisit Intensive testing
14GR211	Unknown		Not relocated	Flood Pool	None
14GR212	Cuesta (?)		Not relocated	Flood Pool	None
14GR213	Unknown		Not relocated	Flood Pool	None
14GR214	Unknown		Not relocated	Flood Pool	None

TABLE V. - continued

<u>Site No.</u>	<u>Cultural Affiliation</u>	<u>Significance</u>	<u>Site Status</u>	<u>Project Impact</u>	<u>Recommendation</u>
14GR215	Unknown		Not relocated	Flood Pool	None
14GR216	Central Plains Keith Focus Archaic	National Register	Relocated	Flood Pool	Periodic revisit
14GR217	Keith Focus		Not relocated	Under water	None
14GR218	Unknown		Not relocated	Under water	None
14GR221	Woodland		Not relocated	Flood Pool	Periodic revisit
14GR502	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR503	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR504	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR505	Woodland	National Register	Previously unrecorded	Flood Pool	Periodic revisit Limited testing
14GR506	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR507	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR508	Woodland Ponona	National Register	Previously unrecorded	Flood Pool	Periodic revisit Intensive testing Ultimate mitigation

TABLE V. - continued

<u>Site No.</u>	<u>Cultural Affiliation</u>	<u>Significance</u>	<u>Site Status</u>	<u>Project Impact</u>	<u>Recommendation</u>
14GR509	Cuesta	National Register	Previously unrecorded	Flood Pool	Periodic revisit Limited testing
14GR510	Archaic	<u>Register of Historic Kansas Places</u>	Previously unrecorded	Flood Pool	Periodic revisit
14GR511	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR512	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR513	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR514	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR515	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR516	Unknown		Previously unrecorded	Flood Pool	Periodic revisit
14GR517	Woodland	National Register	Previously unrecorded	Flood Pool	Periodic revisit Limited Testing
14GR518	Historic		Previously unrecorded	None	None
14GR519	Historic		Previously unrecorded	Flood Pool	Periodic revisit

TABLE V. - continued

<u>Site No.</u>	<u>Cultural Affiliation</u>	<u>Significance</u>	<u>Site Status</u>	<u>Project Impact</u>	<u>Recommendation</u>
14W01	Woodland		Not relocated	Under water	None
14W02	Unknown		Not relocated	Under water	None
14W0201	Unknown		Not relocated	Under water	None
14W0202	Unknown		Not relocated	Under water	None
14W0203	Cuesta (?)		Not relocated	Under water	None
14W0204	Unknown		Not relocated	Flood Pool	None
14W0206	Unknown		Not relocated	Flood Pool	None
14W0207	Unknown		Not relocated	Under water	None
14W0208	Unknown		Not relocated	Under water	None
14W0209	Central Plains Archaic		Not relocated	Under water	None
14W0210	Unknown		Not relocated	Under water	None
14W0211	Unknown		Not relocated	Under water	None
14W0212	Unknown		Not relocated	Under water	None
14W0213	Woodland		Not relocated	Under water	None
14W0215	Great Bend Central Plains Archaic		Not relocated	Under water	None

TABLE V. - continued

<u>Site No.</u>	<u>Cultural Affiliation</u>	<u>Significance</u>	<u>Site Status</u>	<u>Project Impact</u>	<u>Recommendation</u>
14W0216	Archaic		Not relocated	Flood Pool	None
14W0217	Unknown		Not relocated	Flood Pool	None
14W0220	Unknown		Not relocated	Under water	None
14W0221	Unknown		Not relocated	Under water	None
14W0222	Historic Great Bend Central Plains Archaic		Relocated	Flood Pool	None
14W0225	Unknown		Not relocated	Flood Pool	None
14W0227	Central Plains		Not relocated	Flood Pool	None
14W0228	Great Bend Archaic		Not relocated	Under water	None
14W0231	Unknown		Not relocated	Under water	None
14W0301	Unknown		Relocated	None	Periodic revisit
14W0303	Unknown		Relocated	None	Periodic revisit
14W0503	Woodland	National Register Previously unrecorded	Flood Pool	Periodic revisit Limited testing	
14W0504	Unknown	Previously unrecorded	Flood Pool	Periodic revisit	

## BIBLIOGRAPHY

Adams, R. M.

- 1953 The Kimmswick Bone Bed. The Missouri Archaeologist, Vol. 15, pp. 40-56.

Agogino, George A., and Frankforter, W. D.

- 1960 A Paleo-Indian Bison-Kill in Northwestern Iowa. American Antiquity Vol. 25, No. 3, pp. 414-15.

Andreas, A. T.

- 1883 History of the State of Kansas. A. T. Andreas. Chicago.

Bell, Robert E.

- 1958 Guide to the Identification of Certain American Indian Projectile Points. Special Bulletin No. 1 of the Oklahoma Anthropological Society. Oklahoma City.

- 1960 Guide to the Identification of Certain American Indian Projectile Points. Special Bulletin No. 2 of the Oklahoma Anthropological Society. Oklahoma City.

Blackmar, Frank W.

- 1912 Kansas. Vol. II. Standard Publishing Co. Chicago.

Buck, M. M. Mrs.

- 1901 Toronto. In: Duncan and Scott, History of Allen and Woodson Counties, Kansas. Iola Register. Iola, Kansas.

Calabrese, F. A.

- 1967 The Archeology of the Upper Verdigris Watershed. Kansas State Historical Society Anthropological Series No. 3. Topeka.

Connelley, William E.

- 1918 A Standard History of Kansas and Kansans. Vol. V. Lewis Publishing Co. Chicago.

Duncan, L. Wallace, and Scott, Charles F.

- 1901 History of Allen and Woodson Counties, Kansas. Iola Register. Iola, Kansas.

Everts, L. H.

- 1887 Official State Atlas of Kansas. L. H. Everts and Co. Philadelphia.

Fowler, Melvin L.

- 1959 Summary Report of the Modoc Rock Shelter. Illinois State Museum Reports of Investigations, No. 8.

- Gilmore, John S.  
1902 History of Wilson County. In: Duncan, L. Wallace, History of Neosho and Wilson Counties, Kansas. Monitor Printing Co. Ft. Scott, Kansas.
- Glover, Gerold F.  
1978 Analyses of Early Paleo-Indian Points. Masters Thesis. Wichita State University.
- Goebel, E. D., Hilpman, P. L., Beene, D. L., and Noever, R. J.  
1960 Oil and Gas Developments in Kansas during 1959. Bulletin 147. University of Kansas Publications. Lawrence.
- Graham, R. W.  
1979 Archeology and Paleontology of the Kimmswick Clovis-Mastodon Site. Paper given at 37th Plains Conference. Kansas City, Mo.
- Grosser, R. D.  
1973 A Tentative Cultural Sequence for the Snyder Site, Kansas. Plains Anthropologist, Vol. 18 (61): 228-38.
- Heiss, Willard C.  
1968 The Census of the Territory of Kansas, February 1855 ("1855 Census"). Knightstown, Indiana.
- Howard, James H.  
1964 Archeological Investigation in the Toronto Reservoir Area, Kansas. River Basin Survey Paper No. 38, Bureau of American Ethnology Bulletin 189. Washington.
- Johnson, Alfred E.  
1957 Appraisal of the archaeological resources of the Toronto Reservoir, Greenwood and Woodson Counties, Kansas. Mimeo-graphed report, Smithsonian Institution. Inter-Agency, Archaeological Salvage Program. Lincoln.
- Kansas Department of Transportation  
1975- Kansas 1975-76 Official Highway Map. Department of  
1976 Transportation. Topeka.
- Kansas State Board of Agriculture  
1881 Second Biennial Report of the State Board of Agriculture: Kansas Agriculture. Kansas Department of Agriculture. Topeka.
- 1965- Thirty-seventh Biennial Report of the State Board of Agriculture: Kansas Agriculture. Kansas Department of Agriculture. Topeka.

- Kelly, E. E.  
1901 The Public Schools. In: Duncan and Scott, History of Allen and Woodson Counties, Kansas. Iola Register. Iola, Kansas.
- King, James E., and Lindsay, Everett H.  
1976 Late Quaternary Biotic Records from Spring Deposits in Western Missouri. In: Prehistoric Man and His Environments edited by W. R. Wood and R. B. McMillan. Academic Press. New York.
- Koch, A. C.  
1857 Mastodon Remains in the State of Missouri, Together with Evidences of the Existence of Man Contemporaneously with the Mastodon. Transactions of the Academy of Science, Vol. 1, pp. 61-64. St. Louis.
- Leaf, Gary R.  
1979 Finding, Managing, and Studying Prehistoric Cultural Resources at El Dorado Lake, Kansas (Phase I). Report to Department of the Army, Corps of Engineers, Tulsa District. University of Kansas, Museum of Anthropology Research Series, No. 2. Lawrence.
- Logan, Wilfred D.  
1952 Graham Cave, An Archaic Site in Montgomery County, Missouri. Missouri Archaeological Society Memoir No. 2.
- Marshall, James O.  
1972 The Archeology of the Elk City Reservoir: A Local Archeological Sequence in Southeast Kansas. Kansas State Historical Society Anthropological Series No. 6. Topeka.
- McMillan, R. Bruce  
1971 Biophysical Change and Cultural Adaptation at Rodgers Shelter, Missouri. Ph.D. dissertation, Department of Anthropology, University of Colorado. Boulder.
- 1976 Man and Mastodon: A Review of Koch's 1840 Pomme de Terre Expeditions. In: Prehistoric Man and His Environments edited by W. R. Wood and R. B. McMillan. Academic Press. New York.
- Monger, Earl  
1970 A Preliminary Report of the Larned Site. Kansas Anthropological Association Newsletter, Vol. 15, No. 8: 1-15.
- Moore, Raymond C. and Haynes, Winthrop P.  
1917 Oil and Gas Resources in Kansas. State Geological Survey of Kansas, Bulletin 3. State Printer. Topeka.

Morris, Eugenia B.

1971 The Early Toronto Area. By the author. Wichita.

National Register of Historic Places

U. S. Department of the Interior, National Park Service.  
Washington, D. C.

Ogle, G. A.

1922 Standard Atlas of Greenwood County, Kansas. Ogle and Co.  
Chicago.

Perino, Gregory

1968 Guide to the Identification of Certain American Indian  
Projectile Points. Special Bulletin No. 3, Oklahoma  
Anthropological Society. Oklahoma City.

Reid, Kenneth C.

1979 Fiber Tempered Pottery from Nebo Hill. Paper presented at  
37th Plains Conference. Kansas City, Mo.

Register of Historic Kansas Places

Historic Preservation Dept., Kansas State Historical Society.  
Topeka.

Rohn, A. H., and Daniel, Katherine J.

1979 Rocky Ford Archaeology. Report to Heritage Conservation and  
Recreation Service. Denver.

Rohn, Arthur H., Daniel, Katherine J., and King, Eleanor

1972 Recorded Archaeological Resources in the Verdigris River  
Basin, Kansas and Oklahoma. In: Verdigris River Basin,  
Oklahoma and Kansas: Environmental Inventory and Assessment,  
Chapter 4. Wichita.

Rohn, Arthur H., Stein, C. Martin, and Glover, Gerold

1977 Wolf Creek Archaeology, Coffey County, Kansas. Report to  
Kansas Gas & Electric Company. Wichita.

Rowlison, Don

1977 A Report of Archaeological Investigations at the Big Hill  
Lake Project, Southeastern Kansas. Report to U. S. Corps  
of Engineers, Tulsa District. Archaeology Department,  
Kansas State Historical Society. Topeka.

Royce, Charles C.

1971 Indian Land Cessions in the United States. Arno Press and  
the New York Times. New York.

Rydjord, John

1972 Kansas Place Names. University of Oklahoma Press. Norman.

Saunders, J. J.

1975 Late Pleistocene Vertebrates of the Western Ozark Highlands, Missouri. Ph.D. Dissertation, Department of Geosciences, University of Arizona. Tucson.

Shippee, J. M.

1948 Nebo Hill, a lithic complex in western Missouri. American Antiquity Vol. 16 (1): 28-32.

1964 Archaeological Remains in the Area of Kansas City: Paleo-Indians and the Archaic Period. Missouri Archaeological Society Research Series, No. 2. Columbia.

Stockebrand, Lottie L.

1966 The Historical Development of Woodson County, Kansas, from 1855 to 1900. Kansas State Teachers College. Emporia.

Struever, Stuart, and Holton, Felicia Antonelli

1979 Koster, Americans in Search of their Prehistoric Past. Anchor Press Doubleday. New York.

Tuttle, Charles R.

1876 A New Centennial History of the State of Kansas. Interstate Book Company. Lawrence.

U. S. Department of Agriculture

1977 Soil Survey of Woodson County, Kansas. Soil Conservation Service in cooperation with Kansas Agricultural Experiment Station.

U. S. Department of Commerce. Bureau of the Census

1932 15th Census of the United States. Population. Vol. 3, Pt. 1. Government Printing Office. Washington.

1963 1960 Census of Population, Vol. 1. Characteristics of the Population, Pt. 18, Kansas. Government Printing Office. Washington.

U. S. Department of Commerce. Social and Economics Statistics Adm. Bureau of the Census

1973 Characteristics of the Population. Vol. I, Part 18, Kansas. Government Printing Office. Washington.

Wedel, Waldo R.

1959 An Introduction to Kansas Archeology. Bureau of American Ethnology Bulletin 174. Washington.

Wilmethe, Roscoe

1970 Excavations in the Pomona Reservoir. Kansas State Historical Society, Anthropological Series No. 5. Topeka.

- Witty, Thomas A., Jr.
- 1967 The Pomona Focus. Kansas Anthropological Association Newsletter, Vol. 12, No. 9, pp. 1-5. Topeka.
- 1969 Notes on Flint Hills Archaeology. Kansas Anthropological Association Newsletter Vol. 14 (8).
- Wood, W. Raymond, and McMillan, R. Bruce
- 1976 Prehistoric Man and His Environments, A Case Study in the Ozark Highland. Academic Press. New York.
- Woodson County Historical Society
- 1968 In the Beginning. Yates Center, Kansas.
- 1970 In the Beginning. Yates Center, Kansas.
- 1971 In the Beginning. Yates Center, Kansas.

INTERVIEWS

Beal, Jim, Toronto Reservoir, Corps Officer  
Davis, Evelyn, Toronto, Librarian  
Greenwood County Historical Society Staff, Eureka  
Gustin, Phyllis, Toronto, member of Woodson County Historical Society  
Herder, Vonda, Yates Center, Librarian (telephone only)  
Kester, Dolly, Toronto, resident  
Lauer, Frances, Toronto, City Clerk (telephone only)  
Missouri Pacific Railroad - El Dorado stationmaster  
Moon, Rex, Toronto, First National Bank  
Swilley, Mrs. J., Toronto, resident

END  
DATE  
FILMED  
10-81  
DTIC

TABLE V. - co

<u>Site No.</u>
14GR215
14GR216
14GR217
14GR218
14GR221
14GR502
14GR503
14GR504
14GR505
14GR506
14GR507
14GR508

TABLE V. - 4

<u>Site No.</u>
14GR509
14GR510
14GR511
14GR512
14GR513
14GR514
14GR515
14GR516
14GR517
14GR518
14GR519

TABLE V. - c

<u>Site No.</u>
14W01
14W02
14W0201
14W0202
14W0203
14W0204
14W0206
14W0207
14W0208
14W0209
14W0210
14W0211
14W0212
14W0213
14W0215

TABLE V. - C

<u>Site No.</u>
14W0216
14W0217
14W0220
14W0221
14W0222
14W0225
14W0227
14W0228
14W0231
14W0301
14W0303
14W0503
14W0504

Wilmett, Roscoe  
1970 Excavations in the Pomona Reservoir. Kansas State Historical  
Society, Anthropological Series No. 5. Topeka.





DTIC